CHASE ECONOMETRIC ASSOCIATES, INC.

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PHASE II OF

THE ECONOMIC IMPACTS OF MEETING EXHAUST EMISSION STANDARDS, 1971-1980

PART TWO

BASELINE FORECASTS OF ECONOMIC PERFORMANCE

PREPARED FOR

THE COUNCIL ON ENVIRONMENTAL QUALITY

BY

CHASE ECONOMETRIC ASSOCIATES, INC.

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I. The Chase Econometrics Long Range Inter-Industry Forecasting System

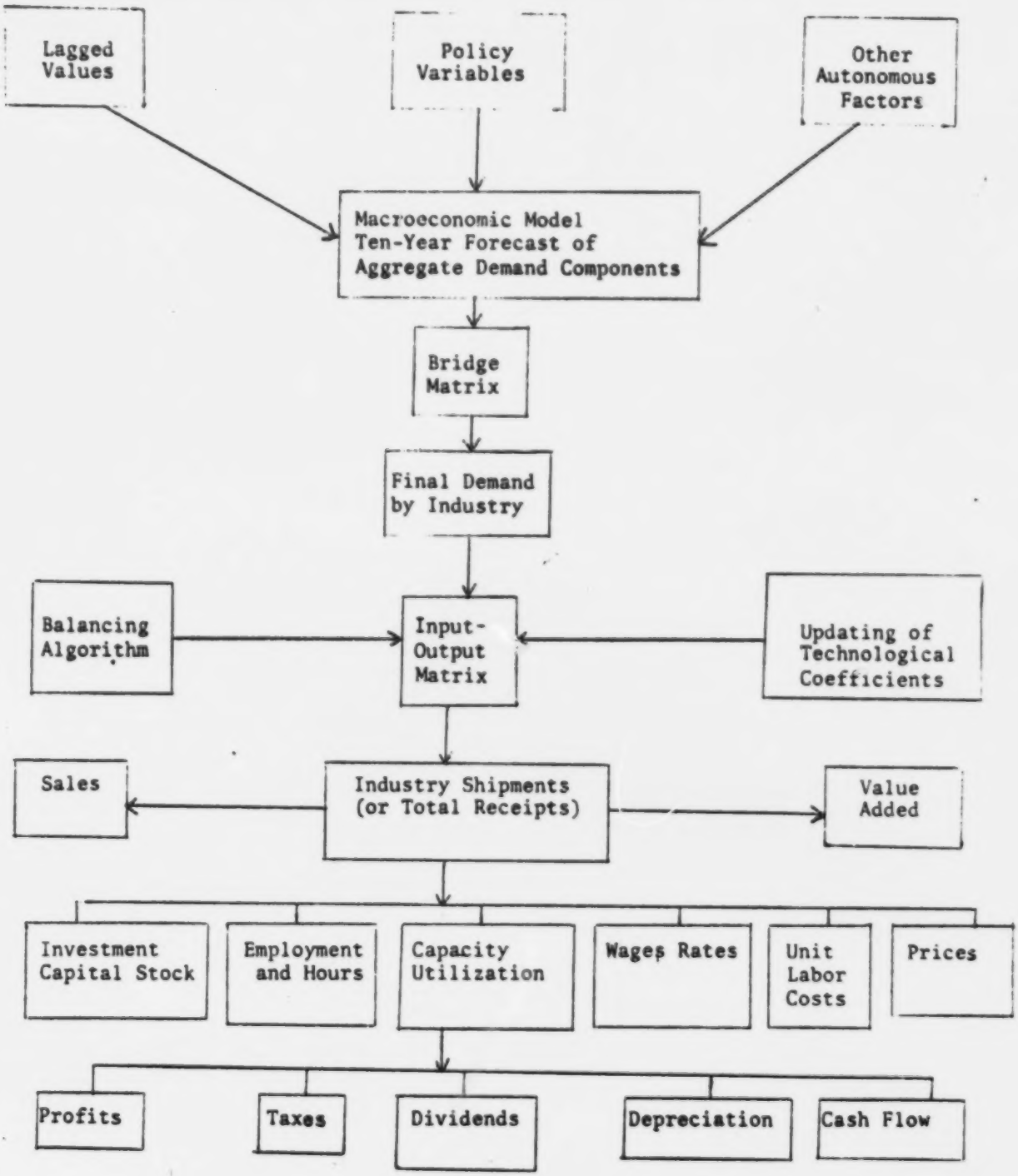
Both the baseline projections of economic performance and the final numerical estimates of the economic impacts resulting from compliance with the exhaust emission standards will be based in large part on the Chase Econometrics Long Range Interindustry Forecasting System. As a glance at the diagram on the next page will show, the forecasting system is composed of three parts: (1) A long range macroeconomic forecasting model which generates estimates of over four hundred macroeconomic variables including nearly forty separate components of aggregate demand; (2) An updated version of the 1963 OBE Input/Output Table, which, when "driven" by our estimates of aggregate demand, yields estimates of shipments for each of over eighty industries; (3) Regression models for each of the 80 industries which, depending on the availability of supporting data, yield estimates of up to fifteen variables such as profits and employment for each of the industries.

All projections of macroeconomic variables will be based on runs of the Macroeconomic Model mentioned above. The Model as it is used here is designed to predict on an annual basis ten years into the future; it is, however, the same model in all important regards as the one CEAI uses to forecast short term (quarterly) fluctuations in economic activity. As such the Model meets various long run homogeneity conditions such as the constancy of the savings rate and the constancy of the capital - output ratio, while at the same time placing great emphasis on variables such as capacity utilization and inventory investment which are required for accurate quarterly forecasting. The Model is unique in that it is fully simultaneous and thus stresses the interrelationships between the real, monetary, and price sectors. As such when a "policy variable" or "other autonomous factor" is altered, the effects are felt throughout the entire model as they are in the economy. For example the institution of an investment tax credit will in the course of stimulating fixed business investment also make credit more difficult to obtain for the housing sector, thus causing a slowdown in housing starts, etc. The Model captures interrelationships of this type.

The Macro Model forecasts some forty components of aggregate demand: consumption of apparel, major household appliances, housing services, etc.; investment in plant and equipment, multi-family housing, inventory investment, etc.; and exports and imports of finished goods, food, etc. The forecasts are made in both current and constant dollars. It is noteworthy in view of the ultimate goals of this study that the CEAI Macro Model forecasts separately U.S. personal consumption expenditures on automobiles, personal consumption expenditures on tires and automobile parts, and total new passenger car registrations (a figure including both autos purchased for personal use and as part of business investment.)

SCHEMATIC REPRESENTATION OF

CHASE ECONOMETRICS INDUSTRY FORECASTING SYSTEM



The list of explanatory variables included in the equation for new passenger car registrations (NPCR) is quite lengthy, and includes

- personal disposable income and its distribution (proportion stemming from transfer payments, etc.)
- consumer price index and price index for automobiles
- index of credit rationing to measure the availability of financing
- average monthly payment on new autos
- rate of unemployment to measure consumer sentiment
- stock of new passenger cars
- dummy variables for auto strikes

as it attempts to capture the variety of interacting forces which affect auto sales over the business cycle. The equation for tires and parts is similarly detailed. Of special note is the fact that expenditures in this category are seen as a net substitute for purchases of new autos. For instance as transfer payments rise as a proportion of disposable income fewer new cars are purchased and older autos are maintained by increased expenditures in the tires and parts category.

As the above paragraph shows the auto sector is highly interactive with both the real and monetary sectors of the economy. Any exogenous forces which affect unemployment, credit availability, or income distribution have an impact - captured by the model - on auto sales. Two words of caution should be sounded at this point regarding the NPCR estimation in the Macro Model. U.S. consumption - not production - is being estimated, i.e. the 11.1M units forecasted for 1972 are U.S. purchases of autos produced both domestically and in foreign countries. Also the 11.1M units forecast does not differentiate among model, price, or size of auto. Further work on both of these issues is done both later on in the Inter Industry Model itself and also outside of the schema of the Model.

Given that we wish to analyze the effects of reduced automobile consumption by the U.S. public - the change in NPCR as estimated in the Macro Model - not just on the overall U.S. economy (an effect which could be analyzed without moving beyond the Macro Model) but also on the U.S. auto industry and its major supplying industries, we must move to parts two and three of the Inter-Industry System.

From the estimates of aggregate demand - personal consumption of apparel, government defense expenditures, net exports of finished goods, residential construction - some forty in number, we must gather together estimates of final demand (an industry's contribution to GNP) for each

of the eighty industries enumerated in the 1963 Input/Output Table. This involves combining personal expenditures for apparel (net of imports) with that portion of government defense expenditures going to clothe the armed forces to arrive at final demand for the apparel industry. Airline expenditures for stewardesses' uniforms are not counted since they contribute to personal consumption of transportation services which in turn contribute to final demand for the air transportation industry. These conversions from aggregate demand to final demand are accomplished by means of a bridge matrix, constructed on the basis of observed past relationships and projected trends.

These final demand projections are combined with the input/output table to generate industry shipments for each of the eighty industries. The I/O table shows the interrelationship between an industry's output and the requirements of its outputs - both directly and indirectly - upon the outputs of all other industries. The proportions of purchased inputs - direct requirements from each of the 79 other industries - are calculated for each of the 80 industries. In addition the indirect requirements involved in these chains of demand are also calculated. While it may be true that the air transportation industry has a negligible direct requirement for lumber products, it does have a direct requirement for paper products - tickets, magazines, food packaging, etc. When these supplying industries increase their outputs in response to the air industry's increased demand for their inputs, they will then increase their direct requirements upon the lumber industry. To the extent that this occurs air transportation is "credited" with an indirect requirement for lumber product.

The CEAI staff has developed and employs algorithms which enable them to update in a systematic manner the 6400 coefficients - direct and indirect requirements - of the I/O table from 1963 to the present and on through to 1980. In addition the capability exists of changing any number of these coefficients to simulate the effects of changing methods of production without violating the internal consistency of the system.

The projections stemming from the I/O table yield us baseline projections of shipments for the motor vehicle industry and its major supplying industries. An examination of the coefficients of the motor vehicle "column" of the I/O matrix indicates which industries are the major suppliers of the motor vehicle industry by telling us the direct and indirect requirements of motor vehicles for each.

After shipments have been determined, the remaining variables for each industry are predicted using multiple regression analysis. Annual equations are estimated using shipments or value added, other endogenously generated variables within the industry subsystem, and macroeconomic variables as the independent arguments. Since these functions are estimated on an annual basis and are used for long-range projections, they give less importance to short-run fluctuations, such as bottlenecks in delivering producer durables and lags between changes

in unit labor costs and prices, inasmuch as the divergencies cancel out over the course of a year. If on the other hand these phenomena are also reflected in yearly data they would also be included in these functions.

The general schematic representation of the remaining equations for a typical industry is as follows:

Investment = f (output originating ; financial variables ; capital stock)

↑ as generated by I/O ↑ macroeconomic variables ↑ calculated from past investment

Having generated figures for capital stock we can then estimate the labor requirements - production function:

Employment = f (output originating ; capital stock ; technological trends)

We can now estimate capacity utilization from our predictions of employment and capital stock. We then explain wage rates, which can in turn be used to explain prices. The functions are of the form:

Wage Rates = f (aggregate wage rates ; aggregate unemployment ; relative changes in output prices and profits)

Price = f (unit labor costs ; capacity utilization)

We now have generated enough industry information to predict profits, using the following type of equation:

Profits = f (output, prices, unit labor costs, capacity utilization)

In order to calculate cash flow we add equations for corporate income taxes (a function of profits and tax laws), dividends (a function of aftertax profits) and depreciation (a function of present and past investment and tax laws).

Thus a complete run through the Long Range Inter-Industry Forecasting System yields us baseline projections for the years 1971 through 1980 for -

- GNP and its major components along with many other macroeconomic variables such as rates of inflation and unemployment
- New passenger car registrations
- Shipments for 80 industries including motor vehicles and equipment and its major supplying industries

- Other industry variables such as profits, employment, investment and capacity utilization.

The methodology to be employed in estimating the economic impacts of meeting the exhaust emission standards is quite straightforward and easily employed given the Inter-Industry Model and the baseline projections generated by it. Using the methods and theory discussed in section III, estimates of the annual increases in price occasioned by the meeting of the standards are made. The price term in the NPCR equation in the Macro Model is then adjusted upward by these amounts. The Macro Model is then rerun on this basis and estimates of the effect of the standards on NPCR and macroeconomic variables result. Conversion is then made from the components of aggregate demand to final demand by industry and the complete I/O and industry regression systems are rerun in order to isolate the economic impacts upon industry variables.

II. The Structure of Automobile Production in the United States

A lengthy discussion of structure is clearly not required for the domestic automobile industry. The U.S. automobile industry is well known as the classic textbook example of the non-competitive industry. The industry is made up of one strong firm; GM, two reasonably healthy firms, Ford and Chrysler; and one weak firm, American Motors Corp. Price competition with respect to manufacturer's suggested retail price is as likely to occur as the successful entry of another domestic producer into the U.S. market. All firms operate except in the very best years with significant amounts of unused capacity, i.e. on the falling portions of their ATC curves. Industry pricing policies can be simulated equally well with each of several models, none of which bear striking resemblance to the standard competitive model. General Motors is recognized as the industry "price leader" in each price category. GM may be seen as choosing the price in each category, given its share of U.S. demand in that market, in such a way as to maximize its total corporate profits from the sale of automobiles. (Note that GM in its pricing policies cannot afford to ignore the cross price elasticities of demand between categories of auto sales.) GM's competitors in each category may then be seen as accepting the price set by GM and competing among themselves (and GM) for the remainder of the quantity demanded at that price by the public. The auto companies current bout with the Price Commission should provide ample evidence of the fact that no one will raise their prices above the levels set by GM.

It is clear that GM, recognizing its dominant position in the industry and the industry's time-honored practice of avoiding price competition, has historically practiced various forms of mark-up pricing, probably on a model by model basis. GM is in a position where it can take into account both the phase of the business cycle - the degree to which further reductions in unit sales (due to a price increase) would increase its average unit costs given the shape of its cost curve and its degree of capacity utilization - and the elasticity of demand for each auto category in determining the percentage of per unit increases in costs to pass on to consumers in the form of higher prices.

We have found it useful on both theoretical and operational grounds to divide all automobile sales into five mutually exclusive categories. The criteria for classification is basically one of sales price. We expect, and have in fact found, that sales of luxury cars respond differently to increases in price than do compact cars.

Table 2-1

Composition of Five Size-Price Categories of Automobiles

Category	Short Description	Representative Models Included
I	Sub-Compact	Rambler American, Pinto, Vega, Maverick, etc.
II	Regular Compact	Ambassador/Rebel, Javelin, Dart, Satellite, Falcon, Mustang, Torino, Chevelle, Camaro, etc.
III	Compact Intermediates and Standard-Sized Regulars	Galaxie, Impala, Firebird, Bel Air, etc.
IV	Full-Sized Intermediates, All Station Wagons, Top-of The-Line Regulars	AMX, Polara, Monaco, Newport, LTD, Monterey, Montego, Cougar, LeSabre, Wildcat, Caprice, Delta 88, Catalina, etc.
V	Top-of-the-Line Intermediates and Luxury	Chrysler 300, New Yorker, Thunderbird, Marquis, Electra, Riviera, Olds 98, Bonneville, Grand Prix, Corvette, Lincoln Continental, Imperial, Cadillac.

In Table 2-2 we present the historical shares of each of the Big Four in each of the size-price categories of cars. Points of special note include the following:

(1) The recent and dramatic erosion of AMC's share of the subcompact market.

(2) GM's late entry into the subcompact field.

(3) Chrysler non-entry into the subcompact field.

(4) GM's dominance of the more expensive categories of cars.

(5) AMC's total absence from the luxury car field.

Just as no lengthy discussion of the automobile industry's horizontal structure is required, so, also, no lengthy discourse on the industry's vertical structure is necessary. No other single industry so greatly affects

Table 2-2

Corporate Shares of U.S. Market by Size-Price Category

Corporation	Size-Price Category	% Share in U.S. Sales	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GM	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
	2		25.5	32.4	30.1	29.8	26.3	27.0	34.5	34.6	38.7	37.1
	3		61.8	65.6	63.2	64.3	68.1	65.2	65.0	62.4	64.2	59.7
	4		49.8	55.3	55.1	55.7	55.3	54.3	53.5	50.0	49.8	47.0
	5		67.5	74.8	77.9	72.2	76.1	75.4	77.7	74.3	75.4	69.6
	Total		49.4	54.1	53.4	52.6	53.4	52.0	54.7	52.2	52.7	46.6
FORD	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.2	74.6
	2		43.7	41.0	36.5	42.6	41.9	43.6	32.1	33.7	29.3	25.0
	3		29.9	26.9	27.9	26.8	22.6	23.3	21.9	21.8	20.4	22.8
	4		25.6	20.8	19.8	19.2	24.3	24.4	25.9	30.2	32.0	35.6
	5		22.8	16.7	13.6	17.3	13.2	13.8	12.3	15.8	16.7	22.4
	Total		30.3	27.4	26.0	27.7	27.2	28.2	24.5	26.5	27.3	31.0
CHRYSLER	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2		13.3	10.4	17.1	20.8	26.5	25.6	29.0	27.6	28.7	35.0
	3		6.9	6.1	7.8	8.1	7.8	9.5	11.2	14.0	13.6	15.3
	4		17.3	16.2	18.5	20.1	17.3	18.9	18.7	18.0	16.4	15.6
	5		9.7	8.5	8.5	10.5	10.7	10.8	10.0	9.9	7.9	8.0
	Total		11.4	10.0	12.9	14.7	15.7	16.6	17.7	18.2	17.1	18.9
AMC	1		100	100	100	100	100	100	100	100	26.8	21.4
	2		17.5	16.2	16.3	6.8	5.3	3.8	4.4	4.1	3.3	2.9
	3		1.4	1.4	1.1	0.8	1.5	2.0	1.9	1.8	1.8	2.2
	4		7.3	7.7	6.6	5.0	3.1	2.4	1.9	1.8	1.8	1.8
	5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total		8.9	8.5	7.7	5.0	3.7	3.2	3.1	3.1	2.9	3.5

the performance of so many other industries as does the U.S. automobile industry. While there is a good deal of vertical integration in the industry, e.g. Ford has its own glass plant, steel plant, and chemical plant, in addition to producing its own engines, transmissions, auto bodies, etc., it is difficult to appreciate the degree to which the level of automobile sales affects the U.S. economy. General Motors makes purchases from some 36,000 American businesses. These suppliers of goods and services, who receive about fifty cents of each GM sales dollar, are located in all fifty states and the District of Columbia. Chrysler and AMC purchase a larger proportion of their materials, parts, and components from outside firms than do GM or Ford. For example Chrysler uses more than 19,000 outside firms in the United States and Canada for services and materials, parts and components, and purchases from one or more of such firms substantially all its requirements of batteries, bearings, bumpers, carburetors, decorative die castings, malleable iron, raw glass, radiators, radios, steel, tires, wheels and certain other items.

III. Baseline Forecasts of Economic Performance: 1970-1980

A. Assumptions

Our latest (October 1971) ten-year forecasts have been run based on the most recent modifications of President Nixon's New Economic Plan. We have assumed the following with regard to the ultimate fate of the Plan -

(1) Excise tax on automobiles is repealed and not reinstated during the decade.

(2) The investment tax credit is instituted at a flat 7% and remains in force throughout the decade.

(3) The 20% slash in accounting tax lives will stay on the books, but the alternative first-year accounting convention which allowed a full year's depreciation on equipment purchased any time during the year will be cancelled.

(4) Revaluations of foreign currencies will be accomplished by January 1, 1972 at which time the import surcharge will be dropped. No further major revaluations are projected over the decade.

(5) Phase II of the Plan will have some limited success in reducing the rates of growth of wages and prices in 1972. The salutary effects on wages and prices will soon decrease, however, and the Control Panels will eventually be disbanded.

One further point should be noted. In accordance with the request of the Council on Environmental Quality we have adjusted our baseline forecasts in such a way as to remove the "growth recession" we had been forecasting for the period 1974-1975. This has been achieved by adding a mix of countercyclical fiscal and monetary policies to the exogenous policy assumptions which underlie our model. We present these and other exogenous assumptions in Table 2-3.

B. The U.S. Economy

In this section we present in tabular form our baseline estimates of economic performance for the U.S. economy for the period 1971-1980. Note that these estimates are based on The Council on Environmental Quality assumption of no recession for the period 1974-75.

Table 2-3

ASSUMPTIONS FOR KEY POLICY VARIABLES

NAME OF VARIABLE	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Federal government expenditures											
Purchases of Goods and Services	97.2	96.8	100.1	109.2	114.6	119.5	125.7	132.0	139.4	148.0	157.1
National defense	75.3	72.0	74.0	79.4	81.5	83.6	87.1	90.5	94.3	98.1	102.1
Other	21.9	24.8	26.0	29.8	33.0	35.8	38.6	41.4	45.1	49.9	55.0
Transfer payments											
Old-age and health benefits	38.5	45.0	51.6	60.1	67.1	81.1	91.2	108.1	122.1	135.1	149.6
Other Federal Transfer payments	22.6	28.9	34.5	43.3	49.0	56.6	57.8	62.0	68.2	75.9	85.1
Grants-in-aid	24.4	29.6	35.0	40.6	45.8	51.2	57.3	64.2	71.9	80.7	90.4
Federal government receipts											
Social insurance taxes	49.3	56.4	72.1	85.5	96.8	120.5	132.6	162.2	177.0	196.3	218.2
St-local government expenditures											
Purchases of Goods and Services	122.2	135.7	150.2	166.2	183.4	202.6	223.6	246.9	272.1	300.9	330.7
Transfer payments(except unemploy. ins.)	10.5	11.1	11.9	13.1	14.5	15.7	17.0	18.4	19.9	21.6	23.4
Other government variables											
Civilian Employment	12.5	12.9	13.2	13.5	14.0	14.6	15.2	16.0	16.7	17.4	18.2
Military wage ($/hour)	2.92	3.19	3.63	3.78	3.93	4.11	4.27	4.45	4.63	4.81	5.01
Civilian wage rate (incl. st-local empl.)	3.66	3.91	4.14	4.35	4.50	4.66	4.85	5.04	5.24	5.45	5.67
Monetary variables											
Unborrowed reserves	27.70	30.93	33.30	35.70	39.20	43.30	47.32	51.65	56.05	60.45	64.85

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Table 2-4

Baseline Forecasts of Macroeconomic Performance

VARIABLE NAME	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES,YEARS- 1-5	6-10	1-10
TABLE 1.1 -- GROSS NATIONAL PRODUCT IN CURRENT DOLLARS														
GROSS NATIONAL PRODUCT	974.1	1050.3	1147.1	1266.8	1374.2	1477.7	1688.0	1742.6	1881.3	2020.2	2182.1	8.91	7.93	8.45
CONSUMPTION EXPENDITURES	615.9	664.9	718.4	786.2	850.9	926.4	1003.3	1082.2	1163.5	1244.6	1330.0	8.65	7.26	7.98
DURABLE GOODS	104.7	101.2	107.9	117.5	127.5	136.1	149.0	159.4	169.8	180.3	190.5	7.67	6.35	7.27
NONDURABLE GOODS	264.7	280.6	303.2	328.6	353.4	373.3	396.0	420.6	444.0	467.1	490.9	7.39	5.46	6.40
SERVICES	262.5	283.0	307.3	340.1	370.0	417.0	457.5	502.3	549.7	597.2	646.6	10.10	9.03	9.60
GROSS PRIVATE INVESTMENT	135.2	151.9	174.9	201.5	215.6	227.9	254.9	282.1	306.0	333.6	362.5	10.60	9.21	10.14
FIXED INVESTMENT	132.4	148.7	165.5	185.0	201.4	217.3	242.1	267.2	292.3	319.1	347.3	9.94	9.44	9.87
NONRESIDENTIAL	109.3	107.6	118.9	138.4	157.6	172.4	192.0	212.6	231.0	252.9	273.6	12.52	9.14	10.92
STRUCTURES	36.0	38.5	42.7	51.5	59.2	66.4	76.1	86.0	96.6	108.6	120.6	14.61	12.20	13.52
EQUIPMENT	65.3	69.1	76.2	87.0	98.4	106.0	116.7	126.5	135.2	144.3	152.9	11.30	7.00	9.22
RESIDENTIAL STRUCTURES	30.3	41.1	46.6	47.4	43.0	44.9	49.3	54.6	60.5	66.2	73.7	2.19	10.57	6.60
NONFARM	29.0	40.6	46.0	46.7	43.1	44.2	48.6	53.0	59.7	65.4	72.0	2.14	10.66	6.71
CHANGE IN INVENTORIES	2.0	3.2	9.4	15.7	14.3	10.7	12.0	15.0	14.5	14.4	15.2	35.51	4.52	19.09
NET EXPORTS OF GOODS AND SERV	3.9	1.0	3.5	3.7	1.0	1.3	.7	-.6	-.5	1.3	3.9	5.21	55.54	15.73
EXPORTS	62.9	67.9	72.1	78.0	83.6	90.0	96.9	104.5	113.1	123.7	135.1	7.33	8.60	7.95
IMPORTS	59.0	66.0	68.5	74.3	81.0	88.0	96.2	105.1	113.6	122.4	131.3	7.36	8.00	7.70
GOVERNMENT PURCHASES	219.4	232.6	250.3	275.4	298.0	322.1	349.4	378.9	411.5	440.9	487.0	8.40	8.70	8.57
FEDERAL	97.2	96.0	100.1	109.2	114.6	119.5	125.7	132.0	139.4	140.0	157.1	5.39	5.73	5.52
NATIONAL DEFENSE	75.3	72.0	74.0	79.4	81.5	83.6	87.1	90.5	94.3	90.1	102.1	3.02	4.05	3.95
OTHER	21.9	24.0	26.0	29.0	33.0	35.0	38.6	41.4	45.1	49.9	55.0	9.59	9.23	9.22
STATE AND LOCAL	122.2	135.7	150.2	166.2	183.4	202.6	223.6	246.9	272.1	300.9	330.7	10.53	10.27	10.39
TABLE 1.2 -- OTHER MAJOR ECONOMIC INDICATORS														
MONEY SUPPLY WITHOUT TIME DEP	210.0	224.2	239.3	257.5	279.7	300.6	339.9	371.1	401.9	431.6	460.1	8.31	7.00	8.30
MONEY SUPPLY WITH TIME DEPOSIT	410.4	470.0	525.0	572.0	633.0	699.4	767.0	839.7	914.3	990.2	1067.2	9.94	8.61	9.30
TREASURY BILL RATE, 91-DAY	6.44	4.35	4.73	5.09	4.52	4.56	4.72	4.01	4.93	5.09	5.30	1.15	2.93	2.20
CORPORATE BOND RATE, NEW ISSUE	9.05	7.91	7.99	7.69	7.22	7.01	7.04	7.00	7.05	7.15	7.32	-2.90	.97	-.05
INDEX OF INDUS PROD, TOTAL	106.5	106.7	113.0	122.4	129.0	132.9	141.5	140.5	155.0	162.0	169.5	5.64	4.61	5.27
INDEX OF INDUS PROD, MFG.	105.1	104.9	112.3	121.3	120.0	131.0	140.5	147.5	153.9	160.9	160.4	5.07	4.63	5.39
INDEX OF INDUS PROD, STEEL	100.0	90.4	101.9	117.3	123.1	124.2	129.0	136.3	147.5	154.0	163.1	6.53	5.07	6.01
INDEX OF CAPACITY UTILIZATION	02.7	01.0	05.6	09.7	91.5	91.1	92.6	93.0	93.0	93.2	93.5	2.72	.27	1.50
NEW PASSENGER CAR SALES,SAAR	0.44	10.32	11.17	11.91	12.37	12.60	13.31	13.60	13.90	14.24	14.53	5.20	2.22	3.07
TOTAL PRIVATE HOUSING STARTS	1.46	2.00	2.10	1.96	1.72	1.70	1.09	2.02	2.16	2.25	2.39	-2.09	6.02	1.99
GNP IN 1950 DOLLARS	720.0	741.9	705.7	036.1	075.5	006.6	052.0	006.2	1030.4	1003.4	1131.1	5.14	4.30	4.79
IMPLICIT GNP DEFLATOR	135.3	141.6	146.0	151.5	157.0	163.0	160.7	174.9	101.1	107.2	192.9	3.50	3.40	3.49
CONSUMER PRICE INDEX	116.3	121.2	124.0	129.0	135.5	141.5	147.0	153.0	159.0	164.6	169.9	3.05	3.60	3.02
WHSL PRICE INDEX (INDUS COMM)	110.0	114.0	116.1	117.9	119.0	122.2	124.4	126.3	120.0	129.3	130.2	1.75	1.16	1.40
PCT CHANGE IN GNP$ (ANN RATE)	6.70	7.02	9.21	10.43	0.40	7.53	0.02	0.37	7.96	7.01	7.59	-.95	-3.60	-.34
PCT CHANGE IN GNP50 (ANN RATE)	3.04	3.04	5.90	6.42	4.71	3.56	5.09	4.56	4.24	4.33	4.41	3.90	-3.54	4.20
PCT CHANGE IN GNP DEFLATOR	2.94	4.63	3.11	3.77	3.62	3.04	3.54	3.64	3.57	3.33	3.05	-4.60	-3.67	-4.53
PCT CHANGE IN CONS PRICE INDEX	4.30	4.19	2.96	4.06	4.36	4.45	3.90	4.06	3.00	3.54	3.23	1.53	-4.63	-2.05
DISPOSABLE PERSONAL INCOME	007.7	743.2	002.5	070.3	955.4	1025.0	1100.0	1190.3	1277.6	1366.1	1457.9	0.37	7.10	7.77
CORP PROFITS WITHOUT IVA ADJ.	75.3	01.0	95.3	109.5	103.7	132.0	147.1	150.7	170.6	104.5	199.0	12.07	7.95	10.42
UNEMPLOYMENT RATE	5.0	5.9	5.0	4.9	4.7	4.0	4.0	4.0	4.0	4.0	4.5	-5.37	.27	-3.15
PERSONAL SAVINGS RATE	7.0	0.0	7.9	0.0	7.6	7.1	6.9	6.5	6.3	6.2	6.2	-2.90	-2.50	-2.73
FEDERAL GOVT SURPLUS OR DEF	-13.7	-21.4	-19.7	-21.5	-16.6	-3.0	2.1	17.6	19.0	24.5	20.3	******	00.04	******

Table 2-4 (Cont'd)

Reproduced from best available copy.

VARIABLE NAME	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES,YEARS- 1-5	6-10	1-10
TABLE 7.1 -- PERSONAL CONSUMPTION EXPENDITURES IN CURRENT DOLLARS														
NET PURCHASES OF NEW CARS	26.8	33.4	34.8	38.1	48.8	43.3	46.8	49.2	51.6	53.9	55.9	6.69	4.58	5.87
NET PURCHASES OF USED CARS	1.9	1.8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	5.85	.88	2.21
MOBILE HOMES	3.6	4.6	5.5	6.1	7.1	8.1	9.2	10.3	11.3	12.6	13.9	14.91	10.91	13.82
TIRES AND AUTO PARTS	5.6	6.6	7.4	8.2	9.8	9.8	10.6	11.5	12.5	13.4	14.6	10.88	8.30	9.11
AUTOMOBILES AND PARTS	37.1	46.5	49.8	54.7	59.1	63.3	68.8	73.1	77.6	82.1	86.5	8.83	5.89	7.14
MAJOR HOUSEHOLD APPLIANCES	16.9	19.8	19.7	20.6	21.7	22.2	24.7	26.1	27.4	28.7	29.7	3.93	4.74	5.88
FURNITURE AND FURNISHINGS	20.5	21.1	22.6	24.8	27.4	29.7	32.7	35.4	38.2	41.8	43.8	8.94	7.55	8.43
OTHER CONSUMER DURABLES	14.2	14.6	15.8	17.4	19.3	20.8	22.7	24.7	26.6	28.5	30.5	9.25	7.63	8.49
TOTAL DURABLE GOODS	104.7	101.2	107.9	117.5	127.5	136.1	149.8	159.4	169.8	180.3	190.5	7.67	6.35	7.27
FOOD AND BEVERAGES	131.8	138.7	149.7	161.7	172.8	188.8	189.8	198.2	206.8	215.2	223.7	6.72	4.31	5.45
CLOTHING AND SHOES	52.6	56.9	61.4	67.6	74.3	79.3	86.2	93.1	100.1	107.1	114.4	8.68	7.34	8.87
OTHER CONSUMER NONDURABLES	80.4	85.1	92.1	99.3	107.1	114.8	121.6	129.3	137.1	144.8	152.7	7.68	5.85	6.71
TOTAL NONDURABLE GOODS	264.7	280.6	303.2	328.6	353.4	373.3	396.8	420.6	444.8	467.1	490.9	7.39	5.46	6.48
HOUSING SERVICES	91.2	99.7	111.4	126.8	148.4	153.1	165.2	179.2	193.5	206.9	220.9	11.31	7.55	9.23
TRANSPORTATION SERVICES	17.9	19.8	19.6	20.9	22.7	24.6	26.6	28.7	30.9	33.3	35.6	6.72	7.63	7.25
OTHER CONSUMER SERVICES	153.4	164.3	176.2	193.2	215.8	239.3	265.8	294.5	325.3	357.8	390.8	9.86	10.86	10.87
TOTAL SERVICES	262.5	283.8	307.3	340.1	378.8	417.8	457.5	502.3	549.7	597.2	646.6	10.10	9.03	9.60
TABLE 7.2 -- PERSONAL CONSUMPTION EXPENDITURES DEFLATED BY COMPONENTS OF THE CPI WHERE THEY APPLY INSTEAD OF BY THE CONSUMPTION DEFLATORS. FOR THIS REASON THEY DO NOT ADD TO CONSUMPTION IN 1958 $ AS GIVEN IN TABLE 2.1, PAGE 2														
NET PURCHASES OF NEW CARS	24.3	29.8	32.1	34.1	35.2	35.7	37.2	37.8	38.5	39.5	40.5	4.63	2.16	3.47
NET PURCHASES OF USED CARS	1.8	1.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	4.74	.88	2.88
MOBILE HOMES	3.4	4.1	4.8	5.3	6.8	6.7	7.5	8.3	9.1	9.9	10.8	12.98	9.58	11.37
TIRES AND AUTO PARTS	5.1	5.9	6.4	6.9	7.4	7.8	8.3	8.7	9.2	9.7	10.2	7.27	5.36	6.26
AUTOMOBILES AND PARTS	34.6	41.4	45.2	48.2	50.6	52.1	54.9	56.8	58.7	61.1	63.5	5.93	3.68	4.85
MAJOR HOUSEHOLD APPLIANCES	16.2	18.1	19.8	19.8	20.8	21.2	23.7	25.1	26.6	28.8	29.5	4.82	5.68	5.54
FURNITURE AND FURNISHINGS	17.7	17.7	18.7	19.8	21.8	21.8	23.8	23.9	24.8	25.8	26.8	5.27	3.88	4.68
OTHER CONSUMER DURABLES	12.7	12.8	13.7	14.7	15.7	16.4	17.3	18.2	19.8	19.9	20.8	6.28	4.73	5.58
TOTAL DURABLE GOODS	81.2	98.1	96.6	102.6	108.1	111.5	118.9	124.8	129.1	134.8	140.5	5.47	4.26	5.06
FOOD AND BEVERAGES	114.6	117.3	123.3	128.6	133.7	137.1	142.2	146.6	150.9	155.3	159.7	3.98	2.95	3.49
CLOTHING AND SHOES	45.3	47.5	49.9	52.6	55.2	56.5	59.1	61.4	63.8	66.3	69.1	4.48	4.08	4.25
OTHER CONSUMER NONDURABLES	72.1	73.8	78.8	82.8	85.6	88.1	91.2	94.1	97.8	100.8	103.3	4.53	3.16	3.88
TOTAL NONDURABLE GOODS	283.5	289.4	228.4	231.8	248.9	247.2	256.7	265.1	273.6	282.2	291.5	4.24	3.23	3.74
HOUSING SERVICES	73.8	77.6	83.6	98.4	95.9	99.4	102.1	105.6	109.8	111.4	114.1	6.48	2.83	4.38
TRANSPORTATION SERVICES	14.9	14.8	14.6	14.6	14.8	15.8	15.2	15.4	15.6	15.9	16.1	.36	1.53	.98
OTHER CONSUMER SERVICES	127.5	127.9	138.5	134.5	139.9	145.7	151.8	158.1	164.2	178.2	176.4	3.31	3.82	3.63
TOTAL SERVICES	216.1	220.2	228.7	239.5	258.5	268.1	269.8	279.1	288.8	297.4	306.6	4.25	3.32	3.74
TABLE 7.3 -- OTHER VARIABLES IN CONSUMPTION SECTOR														
NEW PASSENGER CAR SALES,SAAR	8.44	10.32	11.17	11.91	12.37	12.68	13.31	13.68	13.98	14.24	14.53	5.28	2.22	3.87
AVERAGE MONTHLY PAYMENTS,$/MO.	108.27	113.88	108.76	108.38	108.56	110.88	113.28	115.39	117.77	120.86	122.29	-.49	1.95	.87
DUMMY VBL. FOR AUTO STRIKE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	******	******	******
DUMMY VBL. FOR COLOR TV PROG.	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	.00	.00	.00

PLEASE NOTE THAT THE COMPONENTS OF THE CPI CORRESPONDING TO THIS TABLE ARE GIVEN IN TABLE 11.1

Table 2-4 (Cont'd)

Reproduced from best available copy.

VARIABLE NAME	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES,YEARS- 1-5	6-10	1-10
TABLE 8.1 -- INVESTMENT EXPENDITURES IN CURRENT DOLLARS														
FIXED NONRESIDENTIAL INVESTMNT	109.3	107.6	118.9	138.4	157.6	172.4	192.8	212.6	231.8	252.9	273.6	12.52	9.14	10.92
TOTAL NONRES STRUCTURES	36.8	38.5	42.7	51.5	59.2	66.4	76.1	86.8	96.6	108.6	120.6	14.61	12.28	13.52
COMMERCIAL STRUCTURES	10.5	12.7	15.1	17.7	20.5	24.1	29.2	33.9	39.2	45.8	52.5	17.45	15.74	17.08
INDUSTRIAL STRUCTURES	6.8	5.8	6.3	10.7	12.5	12.9	14.6	16.5	19.8	21.9	24.3	26.96	13.66	19.27
OTHER NONRES STRUCTURES	20.2	20.9	21.2	23.1	26.2	29.4	32.3	35.6	38.4	41.8	43.9	8.96	7.93	8.61
PRODUCERS DURABLE EQUIPMENT	65.3	69.1	76.2	87.8	98.4	106.8	116.7	126.5	135.2	144.3	152.9	11.38	7.88	9.22
MANUFACTURING SECTOR	32.8	30.2	32.1	36.1	42.5	47.6	52.8	56.8	61.2	65.1	69.2	12.87	7.42	9.66
OTHER FIXED BUS INV. OBE-SEC	47.7	51.6	58.8	71.2	82.5	88.8	95.8	101.9	113.1	121.9	131.3	14.29	8.44	10.93
RESIDENTIAL STRUCTURES	38.3	41.1	46.6	47.4	43.8	44.9	49.3	54.6	68.5	66.2	73.7	2.19	10.57	6.68
TOTAL NONFARM PRIVATE	29.8	40.6	46.8	46.7	43.1	44.2	48.6	53.8	59.7	65.4	72.8	2.14	10.66	6.71
NEW FAMILY DWELLING UNITS	22.7	32.6	37.3	38.1	35.4	37.6	42.2	47.4	53.5	58.8	65.8	3.65	11.41	7.98
SINGLE-FAMILY DWELLINGS	14.3	21.2	25.8	24.9	19.7	17.6	18.8	21.8	24.1	25.6	28.6	-4.57	11.89	3.37
MULTI-FAMILY DWELLINGS	8.3	11.3	11.5	13.3	15.6	20.8	23.4	26.4	29.5	33.2	36.4	15.22	11.67	13.84
ADDITIONS AND ALTERATIONS	7.1	8.8	8.7	8.6	7.7	6.6	6.3	6.4	6.1	6.6	7.8	-4.81	5.28	-.33
CHANGE IN INVENTORIES	2.8	3.2	9.4	15.7	14.3	10.7	12.8	15.8	14.5	14.4	15.2	35.51	4.52	19.89
TABLE 8.2 -- INVESTMENT EXPENDITURES IN 1958 DOLLARS														
FIXED NONRESIDENTIAL INVESTMNT	79.2	78.6	83.5	92.9	101.4	105.6	112.2	118.2	123.3	129.4	135.3	7.64	4.78	6.21
TOTAL NONRES STRUCTURES	24.2	23.8	23.6	26.8	29.8	30.4	32.6	34.6	36.5	38.7	40.8	7.23	5.78	6.57
COMMERCIAL STRUCTURES	6.9	7.6	8.4	9.2	10.8	11.8	12.5	13.6	14.8	16.3	17.7	9.91	9.12	9.93
INDUSTRIAL STRUCTURES	3.9	3.8	3.5	5.5	6.1	5.9	6.2	6.6	7.2	7.8	8.2	10.73	7.16	11.94
OTHER NONRES STRUCTURES	13.3	12.5	11.8	12.8	12.8	13.5	13.9	14.3	14.5	14.6	14.8	1.95	1.75	1.97
PRODUCERS DURABLE EQUIPMENT	54.4	55.6	59.8	66.2	72.4	75.1	79.7	83.7	86.8	90.7	94.5	7.81	4.36	6.06
MANUFACTURING SECTOR	24.6	22.1	22.5	24.2	27.3	29.1	30.3	31.6	32.6	33.3	34.2	7.21	3.12	5.88
OTHER FIXED BUS INV. OBE-SEC	36.7	37.7	41.3	47.8	53.1	53.9	55.3	56.7	60.2	62.4	65.8	9.34	4.18	6.22
RESIDENTIAL STRUCTURES	21.3	27.2	29.1	27.6	24.8	23.3	24.3	25.5	26.8	28.8	29.8	-3.74	5.21	1.81
TOTAL NONFARM PRIVATE	20.9	26.8	28.7	27.2	23.6	22.9	23.9	25.1	26.4	27.6	29.4	-3.88	5.29	1.83
NEW FAMILY DWELLINGS	15.9	21.5	23.3	22.2	19.4	19.5	20.8	22.1	23.7	24.8	26.2	-2.37	6.82	2.24
SINGLE-FAMILY DWELLINGS	10.1	14.8	16.1	14.5	10.8	9.2	9.2	9.8	10.7	10.8	11.5	-10.10	5.78	-2.13
MULTI-FAMILY DWELLINGS	5.8	7.5	7.2	7.7	8.6	10.4	11.5	12.3	13.8	14.8	14.7	8.51	6.26	7.78
ADDITIONS AND ALTERATIONS	5.8	5.3	5.4	5.8	4.2	3.4	3.1	3.8	2.7	2.8	3.1	-10.35	.88	-5.65
FARM	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.88	.88	.88
CHANGE IN INVENTORIES	1.3	2.9	7.2	11.8	10.6	7.7	9.8	10.4	9.9	9.8	10.2	27.57	3.89	14.95
TABLE 8.3 -- OTHER VARIABLES IN INVESTMENT SECTOR														
SINGLE-FAMILY HOUSING STARTS	.82	1.14	1.28	1.01	.73	.63	.63	.66	.78	.69	.74	-13.95	4.15	-4.75
MULTI-FAMILY HOUSING STARTS	.63	.86	.89	.94	1.08	1.15	1.26	1.36	1.46	1.56	1.65	7.69	6.91	7.56
TOTAL PRIVATE STARTS	1.46	2.08	2.18	1.96	1.72	1.78	1.89	2.02	2.16	2.25	2.39	-2.89	6.82	1.99
NUMBER OF MOBILE HOMES, SAAR	.48	.48	.54	.59	.65	.72	.79	.85	.91	.98	1.05	10.31	7.48	8.99
TOTAL STARTS INCL MOBILE HOMES	1.86	2.48	2.64	2.55	2.38	2.49	2.68	2.87	3.07	3.23	3.44	.11	6.43	3.68
AVG. PRICE S-F HOUS START.$000	18.33	19.26	21.16	23.68	25.74	27.88	30.03	32.38	34.76	37.88	39.34	9.62	6.98	8.25
AVG. PRICE M-F HOUS START.$000	13.67	13.68	13.16	14.18	15.96	17.73	18.79	19.65	20.41	21.48	22.25	6.84	4.32	5.61
VACANCY RATE, RESIDENCES	4.9	5.1	5.8	6.7	6.8	6.4	5.8	5.6	5.6	5.1	4.7	5.91	-5.33	-.97
VACANCY RATE, OFFICE BLDGS.	5.8	6.8	6.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	2.82	.88	.89

C. Industry Performance

The behavior of automobile sales normally follows the same general pattern as the overall economy. The removal of the growth recession of 1974-1975 from our macro forecast has the effect of creating a reletively smooth growth in registrations over the decade.

Table 2-5

New Passenger Car Registrations 1970-1980

Year	NPCR (millions)
1970	8.44
1971	10.32
1972	11.17
1973	11.91
1974	12.37
1975	12.68
1976	13.31
1977	13.60
1978	13.90
1979	14.24
1980	14.53

The percentage of sales representing foreign cars will drop sharply next year from the 16% for the first 9 months of this year to an expected level of 12% next year, due to the 10% import surcharge and subsequent revaluation. After that this percentage may increase again, but in our opinion 15% is the maximum level which can be reached without further changes in the structure of foreign trade, such as changes in tariffs or quotas or the realigning of foreign currency parities. This means that domestic car sales will average approximately 10.0 million units per year during the next four years, which is well above the expected 1971 figure of 8.4 million domestic units. For the last half of the decade this figure is also expected to grow at about 3% per year.

Wholesale prices for automobiles are expected to rise very slowly for the next few years -- 1-1½% per year -- providing of course that the index is measured properly and that additional costs due to new safety and anti-pollution equipment are not considered to be price increases. The slow rate of price increase is due in large part to the wage-price guidelines, which will undoubtedly be applied more forcefully to the auto industry than elsewhere. For the last half of the decade, prices will rise at approximately 2% per year.

Unit labor costs are expected to decline substantially in 1971 and 1972 because of sharply increased unit sales. After that, however, they are expected to rise almost 5% per year for the next three years. While somewhat unusual, this would not be unprecedented -- unit labor costs also rose 5% per year during the 1965-69 period. There will be very little increase in volume during this period. Consequently, production workers are expected to drop some 10% over the three year span, but overhead workers will stay at approximately the same level. Hence labor productivity will increase only about 1½% per year for the 1973-75 period while hourly wage rates are likely to rise 5% per year. Supplements, fueled by costly retirement benefits and increased social security contributions, will rise at almost 15% per year. As a result, after-tax corporate profits in the auto industry are expected to reach an all-time peak of $3½ billion in 1972 but will then decline for the following three years, although barring strikes they are not expected to dip below $3 billion. This fluctuation within a fairly narrow range is basically consistent with the 1964-1969 experience when profits stayed between $2.8 and $3.5 billion (excluding the strike year of 1967).

The profit outlook for the auto industry during the last half of the decade is not particularly bright. Although labor productivity grows at 3% per year, wage rates and supplements continue their rapid growth. As a result, profits grow at only 2% per year, well below the current dollar increase of 5%. While these patterns could conceivably be mitigated it does not seem likely that profits in the automobile industry will grow very rapidly during the last half of the decade.

Table 2-6 lists the industries significantly affected by changes in annual levels of NPCR. Table 2-7 presents our baseline projections of economic performance for this list of industries.

Table 2-6

Industries Significantly Affected by Changes
in Annual Levels of New Passenger Car Registrations

Name	SIC Classification	I/O Classification	Comment
Motor Vehicles and Equipment	371	59	
Primary Iron and Steel Manufacturing	331,332,339	37	
Primary Nonferrous Metals Mfg.	333,334,335 3392	38	
Fabricated Metal Products	34	39 through 42	
- Screw Machine Products, Bolts, Nuts, Metal Stampings	345,346	41	Automobile Stampings
Machinery Except Electrical	35	43 through 52	
- Metalworking Machinery and Equipment	35	47	Machine Tools
- General Industrial Machinery and Equipment	356	49	Ball and Roller Bearings
- Miscellaneous Machinery, Except Electrical	359	50	Machine Shop Products
Electrical Machinery	36	53 through 58	
- Miscellaneous Electrical Machinery and Equipment	369	58	Storage Batteries, Electrical Equipment for Internal Combustion Engines
Textile Mill Products	22	16,17	
- Miscellaneous Textile Goods and Floor Coverings	227,229	17	Tire Cord and Fabric, Automotive Upholstery Items

Table 2-6 (Cont'd)

Name	SIC Classification	I/O Classification	Comment
Apparel and Related Products	23	18,19	
- Miscellaneous Fabricated Textile Products		19	Upholstery Items and Materials
Chemical and Allied Products	28	27 through 30	
- Plastics and Synthetic Materials	282	28	
- Paints and Allied Products	285	30	
Rubber and Miscellaneous Plastic Products	30	32	Tires; Plastic Automotive Items
Stone, Clay and Glass Products	32	35,36	
- Glass and Glass Products	321-323	35	Windows and Windshields
Petroleum Refining and Related Industries	29	31	

TABLE 2-7

BASELINE PROJECTIONS OF INDUSTRY PERFORMANCE

1971-1980

MOTOR VEHICLES AND EQUIPMENT

SIC CLASSIFICATION(S)
371

I/O CLASSIFICATION(S)
59

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	54.51	67.80	76.99	83.74	87.59	98.45	99.22	102.37	105.83	110.34	114.29	7.47	3.60	5.97
SALES, FTC-SEC, CONST $	58.24	59.36	66.63	71.68	74.85	75.25	81.55	83.84	84.93	87.84	90.42	6.11	2.62	4.79
WHSL PRICES, 1967=100.0	100.5	114.2	115.6	116.8	118.3	120.2	121.7	123.3	124.6	125.6	126.4	1.28	.96	1.13
GPO, CONSTANT $	15.30	20.45	23.93	26.89	26.92	27.17	30.80	30.36	30.80	31.47	32.66	7.36	2.14	5.34
PROFITS BEFORE TAXES	2.16	5.76	6.78	7.12	6.94	6.66	7.32	7.85	6.98	7.10	7.17	3.70	-.54	2.45
CORPORATE INCOME TAXES	.73	2.76	3.22	3.36	3.26	3.13	3.42	3.20	3.24	3.29	3.31	3.12	-.76	2.03
PROFITS AFTER TAXES	1.43	3.00	3.56	3.76	3.68	3.54	3.91	3.77	3.74	3.81	3.85	4.22	-.35	2.83
DIVIDENDS	1.45	1.84	2.15	2.36	2.47	2.53	2.74	2.83	2.90	2.90	3.03	8.37	2.54	5.71
RETAINED EARNINGS	-.02	1.16	1.41	1.40	1.21	1.00	1.17	.94	.84	.84	.82	-3.57	-8.35	-3.72
DEPRECIATION	1.76	1.83	1.96	2.10	2.45	2.72	2.97	3.22	3.41	3.53	3.60	10.36	4.90	7.70
CORPORATE CASH FLOW	3.19	4.83	5.53	5.95	6.13	6.25	6.88	6.99	7.15	7.34	7.45	6.67	2.02	4.93
INVESTMENT	1.59	1.49	2.42	3.00	3.61	3.82	3.90	4.20	4.17	4.01	3.90	26.54	-.51	11.20
CAPITAL STOCK	5.06	5.01	6.01	6.66	7.40	8.27	8.90	9.42	9.70	9.90	9.85	9.22	2.50	6.04
CAPACITY UTILIZATION	57.5	72.0	79.0	77.6	72.9	60.1	60.4	65.1	63.0	62.3	61.7	-1.67	-2.52	-1.02
CAPITAL/OUTPUT RATIO	.30	.20	.25	.25	.20	.30	.30	.31	.32	.31	.30	1.72	.42	.60
CAPITAL/LABOR RATIO	3.46	3.04	2.92	3.09	3.42	3.00	3.00	4.09	4.24	4.25	4.21	5.72	2.04	3.67
PRODUCTION WORKERS	613.	690.	732.	751.	749.	730.	771.	765.	759.	760.	757.	1.72	-.45	1.05
HOURS WORKED PER WEEK	40.3	41.0	42.7	43.4	43.7	43.6	44.0	44.1	44.1	44.2	44.3	1.11	.16	.66
HOURLY WAGE RATE	4.23	4.71	5.02	5.29	5.67	6.07	6.46	6.84	7.20	7.54	7.85	6.52	4.99	5.93
SUPPLEMENTS	1.01	2.47	3.14	3.50	3.93	4.65	5.21	6.03	6.45	7.03	7.64	17.06	10.05	13.34
EMPLOYEE COMPENSATION	7.24	9.53	11.31	12.54	13.50	14.02	16.61	10.02	10.90	20.21	21.33	11.66	6.46	9.36
OVERHEAD WORKERS	197.	199.	209.	222.	233.	241.	254.	264.	272.	200.	207.	4.93	3.12	4.17
HOURLY WAGE RATE	6.34	6.72	7.13	7.61	0.20	9.00	9.66	10.35	11.06	11.71	12.32	7.50	6.26	6.96
SUPPLEMENTS	1.05	1.22	1.50	1.76	2.02	2.53	2.06	3.40	3.90	4.39	4.93	20.10	14.56	16.01
EMPLOYEE COMPENSATION	3.65	4.00	4.60	5.27	6.03	7.04	7.96	9.16	10.15	11.20	12.20	15.23	11.45	13.29
UNIT LABOR COST, PCT.	71.17	66.13	66.47	60.29	72.05	00.45	01.09	09.53	94.31	90.54	102.93	5.02	5.00	5.04
GPO PER MAN-HOUR	9.03	10.70	11.62	12.10	12.32	12.40	13.00	13.19	13.39	13.69	13.94	3.91	1.60	2.90
LABOR COST/SALES, PCT.	19.90	19.05	20.66	21.27	22.39	24.17	24.76	26.55	27.52	20.47	29.41	4.91	4.40	4.41
PROFITS/SALES, PCT.	2.62	4.42	4.62	4.49	4.20	3.91	3.94	3.60	3.53	3.46	3.37	-3.02	-3.01	-2.97

MOTOR VEHICLES AND EQUIPMENT

I/O CLASSIFICATION 59

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	47.65	68.81	81.48	89.82	93.83	96.22	107.57	110.27	113.39	118.07	121.[illegible]
GROWTH RATE, ANNUAL	.00	44.40	18.40	10.24	4.47	2.54	11.80	2.51	2.83	4.12	3.19
GROWTH RATE, CUMULATIVE	.00	44.40	30.76	23.53	18.46	15.09	14.53	12.73	11.45	10.61	9.84
SHIPMENTS, CONSTANT $	42.70	58.91	60.93	75.14	77.52	78.26	86.41	87.44	88.94	91.80	94.06
GROWTH RATE, ANNUAL	.00	37.97	17.00	9.00	3.17	.96	10.41	1.19	1.71	3.22	2.46
GROWTH RATE, CUMULATIVE	.00	37.97	27.86	20.73	16.00	12.00	12.47	10.78	9.61	8.80	8.22
PRICE DEFLATOR	1.12	1.17	1.10	1.20	1.21	1.23	1.24	1.26	1.27	1.20	1.30
GROWTH RATE, ANNUAL	.00	4.66	1.20	1.13	1.25	1.57	1.25	1.31	1.10	.07	.72
GROWTH RATE, CUMULATIVE	.00	4.66	2.91	2.32	2.05	1.95	1.04	1.76	1.60	1.50	1.50

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.025	1.000									
1978	1.028	1.032	1.000								
1977	1.025	1.025	1.017	1.000							
1976	1.021	1.020	1.014	1.012	1.000						
1975	1.037	1.041	1.044	1.057	1.104	1.000					
1974	1.033	1.034	1.035	1.041	1.056	1.010	1.000				
1973	1.033	1.034	1.034	1.039	1.048	1.021	1.032	1.000			
1972	1.040	1.042	1.043	1.049	1.058	1.043	1.060	1.090	1.000		
1971	1.053	1.057	1.061	1.068	1.080	1.074	1.096	1.129	1.170	1.000	
1970	1.082	1.089	1.096	1.100	1.125	1.129	1.161	1.207	1.271	1.300	1.000

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PRIMARY IRON AND STEEL MANUFACTURING

SIC CLASSIFICATION(S)
331 332

339 -3392

I/O CLASSIFICATION(S)

37

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES-YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	27.50	28.66	32.25	37.03	40.49	43.67	48.71	54.20	58.44	63.01	67.90	11.10	8.69	10.07
SALES, FTC-SEC, CONST $	23.96	23.35	26.12	29.52	29.99	29.33	31.09	32.40	32.93	33.60	34.73	5.07	2.01	4.51
WHSL PRICES, 1967=100.0	115.1	122.7	123.5	125.4	135.0	148.9	156.7	166.0	177.4	187.1	195.7	4.94	5.72	5.32
GPO, CONSTANT $	9.50	9.02	10.96	12.32	12.56	12.30	13.10	13.69	13.90	14.23	14.60	5.95	2.90	4.97
PROFITS BEFORE TAXES	.99	1.25	1.70	2.10	2.06	1.07	2.15	2.26	2.23	2.30	2.41	10.62	2.96	7.50
CORPORATE INCOME TAXES	.30	.39	.62	.77	.70	.60	.70	.73	.71	.72	.76	11.32	1.97	7.60
PROFITS AFTER TAXES	.69	.06	1.16	1.41	1.36	1.27	1.44	1.53	1.52	1.57	1.65	10.20	3.44	7.56
DIVIDENDS	.60	.56	.55	.57	.59	.60	.63	.67	.71	.75	.00	1.91	5.99	4.06
RETAINED EARNINGS	.10	.30	.61	.04	.77	.67	.01	.06	.02	.03	.05	22.17	1.27	12.35
DEPRECIATION	1.32	1.42	1.50	1.63	1.76	1.92	2.11	2.31	2.49	2.74	3.06	7.00	9.01	0.93
CORPORATE CASH FLOW	2.01	2.20	2.66	3.04	3.12	3.10	3.55	3.04	4.02	4.31	4.72	0.75	7.36	0.43
INVESTMENT	1.60	1.25	1.43	1.95	2.19	2.53	3.09	3.00	4.41	5.06	5.73	19.30	10.69	10.45
CAPITAL STOCK	7.69	7.40	7.16	7.09	7.24	7.40	7.00	0.51	9.31	10.10	11.15	.01	9.00	4.54
CAPACITY UTILIZATION	69.6	73.5	01.9	00.5	06.0	03.4	03.0	01.6	79.0	76.9	75.2	3.21	-2.42	.25
CAPITAL/OUTPUT RATIO	.01	.76	.65	.50	.50	.60	.60	.62	.67	.71	.76	-5.60	6.00	-.03
CAPITAL/LABOR RATIO	4.31	4.42	4.07	3.74	3.65	3.70	3.66	3.76	3.99	4.23	4.47	-4.32	5.11	.14
PRODUCTION WORKERS	609.	660.	667.	700.	734.	740.	792.	036.	059.	005.	914.	3.15	3.64	3.67
HOURS WORKED PER WEEK	40.2	39.6	40.0	41.7	42.0	41.9	42.4	42.4	42.4	42.5	42.5	1.45	.06	.79
HOURLY WAGE RATE	4.05	4.30	4.64	4.90	5.31	5.79	6.10	6.55	6.90	7.37	7.72	7.25	5.72	6.51
SUPPLEMENTS	1.07	1.16	1.40	1.67	1.92	2.39	2.73	3.37	3.77	4.26	4.02	19.90	15.25	17.17
EMPLOYEE COMPENSATION	6.91	7.11	7.97	9.10	10.43	11.04	13.51	15.44	17.00	10.04	20.40	13.59	10.05	12.42
OVERHEAD WORKERS	166.	160.	165.	174.	102.	100.	195.	204.	212.	220.	229.	4.02	4.60	4.04
HOURLY WAGE RATE	5.25	5.65	6.07	6.50	7.20	7.01	0.39	0.90	9.54	10.04	10.47	0.42	5.69	7.09
SUPPLEMENTS	.40	.44	.53	.63	.73	.92	1.03	1.27	1.43	1.62	1.04	20.42	15.59	17.30
EMPLOYEE COMPENSATION	2.21	2.32	2.61	3.01	3.46	3.97	4.43	5.07	5.64	6.21	6.02	14.34	11.37	12.72
UNIT LABOR COST, PCT.	96.03	94.03	96.40	90.90	110.50	127.71	137.04	149.04	162.77	174.64	105.42	7.39	7.05	7.50
GPO PER MAN-HOUR	5.32	5.00	6.24	6.50	6.34	6.12	6.09	6.04	5.95	5.91	5.09	1.36	-.04	.16
LABOR COST/SALES, PCT.	33.07	32.90	32.79	32.92	34.32	36.20	36.04	37.04	30.73	39.45	40.04	2.41	2.11	2.21
PROFITS/SALES, PCT.	2.51	2.99	3.60	3.00	3.36	2.91	2.96	2.02	2.61	2.50	2.43	-.73	-4.03	-2.20

PRIMARY IRON AND STEEL MANUFACTURING

I/O CLASSIFICATION 37

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	35.80	39.14	43.88	50.07	54.65	58.88	65.42	72.49	78.02	83.97	90.41
GROWTH RATE, ANNUAL	.00	9.32	12.11	14.13	9.14	7.74	11.18	10.81	7.64	7.63	7.67
GROWTH RATE, CUMULATIVE	.00	9.32	10.71	11.84	11.16	10.46	10.57	10.68	10.23	9.94	9.71
SHIPMENTS, CONSTANT $	29.84	30.62	34.17	38.39	39.17	38.58	40.82	42.67	43.34	44.37	45.76
GROWTH RATE, ANNUAL	.00	2.60	11.61	12.36	2.02	-1.50	5.81	4.52	1.58	2.37	3.14
GROWTH RATE, CUMULATIVE	.00	2.60	7.01	8.77	7.04	5.27	5.36	5.24	4.78	4.51	4.37
PRICE DEFLATOR	1.20	1.20	1.20	1.30	1.40	1.53	1.60	1.70	1.80	1.89	1.98
GROWTH RATE, ANNUAL	.00	6.55	.45	1.57	6.99	9.38	5.00	6.02	5.96	5.13	4.39
GROWTH RATE, CUMULATIVE	.00	6.55	3.45	2.82	3.85	4.93	4.94	5.10	5.20	5.20	5.11

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.031	1.000									
1978	1.028	1.024	1.000								
1977	1.024	1.020	1.016	1.000							
1976	1.029	1.028	1.030	1.045	1.000						
1975	1.035	1.036	1.040	1.052	1.058	1.000					
1974	1.026	1.025	1.026	1.029	1.021	.985	1.000				
1973	1.025	1.024	1.025	1.027	1.021	1.002	1.020	1.000			
1972	1.037	1.038	1.040	1.045	1.045	1.041	1.071	1.124	1.000		
1971	1.046	1.047	1.051	1.057	1.059	1.060	1.086	1.120	1.116	1.000	
1970	1.044	1.045	1.048	1.052	1.054	1.053	1.078	1.090	1.078	1.026	1.000

PRIMARY NONFERROUS METALS MANUFACTURING

SIC CLASSIFICATION(S)
333 334
335 335
3392

I/O CLASSIFICATION(S)
38

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	21.01	19.75	21.87	24.58	26.50	28.00	30.86	33.72	36.17	38.93	41.95	9.19	7.97	8.73
SALES, FTC-SEC, CONST $	16.81	17.09	18.91	21.19	21.99	22.05	23.49	24.50	25.10	26.09	27.20	6.57	3.73	5.30
WHSL PRICES, 1967=100.0	125.0	115.6	115.6	116.0	120.5	127.3	131.4	137.7	143.7	149.2	154.2	2.46	4.09	3.26
GPO, CONSTANT $	4.29	4.61	5.12	5.79	5.98	6.01	6.45	6.85	7.10	7.42	7.81	6.84	4.90	6.02
PROFITS BEFORE TAXES	1.87	1.17	1.40	1.75	1.77	1.83	2.12	2.30	2.44	2.64	2.85	11.09	7.64	10.43
CORPORATE INCOME TAXES	.57	.30	.42	.52	.52	.54	.65	.71	.76	.83	.91	16.22	8.74	13.24
PROFITS AFTER TAXES	1.30	.87	1.06	1.23	1.25	1.29	1.47	1.59	1.68	1.80	1.94	10.32	7.14	9.32
DIVIDENDS	.60	.55	.57	.61	.63	.66	.71	.76	.80	.84	.90	4.62	6.11	5.62
RETAINED EARNINGS	.70	.32	.50	.62	.61	.63	.76	.83	.89	.96	1.04	10.41	8.07	13.90
DEPRECIATION	.70	.81	.81	.86	.91	.90	1.06	1.14	1.20	1.29	1.42	5.03	7.50	6.50
CORPORATE CASH FLOW	2.00	1.60	1.87	2.09	2.16	2.27	2.53	2.73	2.80	3.09	3.36	7.06	7.32	8.04
INVESTMENT	1.24	1.15	1.30	1.49	1.62	1.70	2.03	2.39	2.69	2.99	3.32	11.60	13.09	12.56
CAPITAL STOCK	5.33	5.44	5.41	5.47	5.56	5.60	5.84	6.10	6.44	6.82	7.24	1.07	5.50	3.23
CAPACITY UTILIZATION	59.1	61.5	65.6	70.6	70.1	68.0	69.2	71.0	70.9	71.0	69.7	2.54	.10	1.41
CAPITAL/OUTPUT RATIO	1.24	1.10	1.06	.94	.93	.94	.91	.89	.91	.92	.93	-5.41	.57	-2.64
CAPITAL/LABOR RATIO	5.59	5.05	5.94	5.61	5.50	5.60	5.54	5.47	5.55	5.63	5.69	-1.56	.67	-.69
PRODUCTION WORKERS	349.	322.	317.	334.	335.	332.	349.	360.	382.	390.	410.	.70	4.43	2.04
HOURS WORKED PER WEEK	40.0	41.3	42.3	43.0	43.3	43.2	43.6	43.6	43.6	43.7	43.0	1.13	.11	.64
HOURLY WAGE RATE	3.72	4.03	4.27	4.53	4.07	5.22	5.55	5.00	6.21	6.52	6.00	6.64	5.21	5.97
SUPPLEMENTS	.49	.53	.62	.73	.00	.96	1.00	1.33	1.49	1.69	1.94	16.12	15.05	15.59
EMPLOYEE COMPENSATION	3.25	3.32	3.60	4.11	4.47	4.05	5.46	6.25	6.00	7.59	0.41	9.97	11.39	10.00
OVERHEAD WORKERS	102.	99.	102.	110.	117.	121.	120.	135.	141.	140.	155.	5.06	4.95	5.03
HOURLY WAGE RATE	4.90	5.21	5.53	5.73	6.00	6.30	6.67	6.94	7.26	7.55	7.77	4.06	3.90	4.54
SUPPLEMENTS	.24	.26	.31	.36	.41	.49	.55	.67	.75	.05	.96	17.46	14.79	15.62
EMPLOYEE COMPENSATION	1.20	1.34	1.49	1.67	1.06	2.00	2.32	2.62	2.09	3.17	3.46	11.69	10.49	11.14
UNIT LABOR COST, PCT.	105.43	100.93	99.32	99.99	105.06	115.36	120.69	129.30	137.47	145.04	151.95	3.40	5.03	4.65
GPO PER MAN-HOUR	4.51	5.13	5.62	5.94	6.01	6.02	6.11	6.14	6.12	6.12	6.14	4.07	.10	2.00
LABOR COST/SALES, PCT.	21.54	23.50	23.25	23.54	23.91	24.70	25.22	26.29	26.99	27.65	20.29	1.17	2.92	2.05
PROFITS/SALES, PCT.	6.10	4.41	4.07	5.00	4.71	4.59	4.77	4.71	4.65	4.64	4.63	1.02	-.77	.54

PRIMARY NONFERROUS METALS MANUFACTURING

I/O CLASSIFICATION 38

SPECIAL FORECAST FOR CEQ - NO RECESSION

FORECAST PREPARED ON NOVEMBER 23, 1971

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	23.47	22.86	25.38	28.78	30.73	32.18	35.55	39.11	41.99	45.29	48.99
GROWTH RATE, ANNUAL	.00	-2.59	11.01	13.37	6.80	4.72	10.47	10.02	7.36	7.84	8.18
GROWTH RATE, CUMULATIVE	.00	-2.59	3.98	7.02	6.97	6.51	7.16	7.57	7.54	7.57	7.63
SHIPMENTS, CONSTANT $	16.44	17.04	18.91	21.38	22.10	22.21	23.83	25.31	26.24	27.41	28.86
GROWTH RATE, ANNUAL	.00	3.68	10.97	13.05	3.37	.49	7.28	6.25	3.67	4.46	5.26
GROWTH RATE, CUMULATIVE	.00	3.68	7.26	9.16	7.68	6.20	6.30	6.36	6.02	5.85	5.79
PRICE DEFLATOR	1.43	1.34	1.34	1.35	1.39	1.45	1.49	1.55	1.60	1.65	1.70
GROWTH RATE, ANNUAL	.00	-6.05	.04	.20	3.32	4.21	2.90	3.55	3.56	3.24	2.77
GROWTH RATE, CUMULATIVE	.00	-6.05	-3.05	-1.95	-.66	.29	.74	1.13	1.43	1.63	1.75

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.053	1.000									
1978	1.049	1.045	1.000								
1977	1.045	1.041	1.037	1.000							
1976	1.049	1.048	1.049	1.062	1.000						
1975	1.054	1.054	1.057	1.068	1.073	1.000					
1974	1.045	1.044	1.044	1.046	1.038	1.005	1.000				
1973	1.044	1.042	1.042	1.043	1.037	1.019	1.034	1.000			
1972	1.054	1.054	1.056	1.060	1.059	1.055	1.041	1.131	1.000		
1971	1.060	1.061	1.064	1.068	1.069	1.069	1.090	1.120	1.110	1.000	
1970	1.058	1.058	1.060	1.064	1.064	1.062	1.077	1.092	1.073	1.037	1.000

FABRICATED METAL PRODUCTS

SIC CLASSIFICATION(S)
34

I/O CLASSIFICATION(S)
39 40
41 42

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	35.20	37.36	42.35	48.03	52.61	57.38	64.30	70.72	76.76	83.44	90.36	11.32	8.88	10.31
SALES, FTC-SEC, CONST $	30.93	32.41	35.76	39.41	41.63	43.38	47.04	49.78	52.35	55.36	58.53	7.56	5.61	6.79
WHSL PRICES, 1967=100.0	113.8	115.3	118.4	121.9	126.4	132.3	136.7	142.1	146.6	150.7	154.4	3.58	3.09	3.34
GPO, CONSTANT $	13.86	14.88	16.12	17.45	18.24	18.83	20.14	21.11	22.03	23.13	24.31	6.06	4.91	5.60
PROFITS BEFORE TAXES	2.84	2.10	2.58	2.97	3.17	3.34	3.66	3.96	4.18	4.49	4.83	12.20	7.20	9.70
CORPORATE INCOME TAXES	.90	.95	1.15	1.31	1.40	1.46	1.60	1.72	1.81	1.94	2.00	11.45	6.00	9.13
PROFITS AFTER TAXES	1.87	1.15	1.43	1.66	1.78	1.87	2.06	2.24	2.36	2.55	2.75	12.96	7.44	10.14
DIVIDENDS	.41	.37	.40	.44	.47	.50	.55	.59	.64	.69	.74	8.25	7.03	8.12
RETAINED EARNINGS	.66	.78	1.04	1.22	1.31	1.37	1.51	1.64	1.73	1.86	2.00	14.95	7.20	10.99
DEPRECIATION	.91	1.06	1.13	1.22	1.32	1.44	1.58	1.73	1.89	2.06	2.24	7.89	9.14	8.61
CORPORATE CASH FLOW	1.97	2.22	2.56	2.88	3.10	3.32	3.64	3.97	4.25	4.61	4.98	10.61	8.10	9.43
INVESTMENT	1.26	1.26	1.48	1.75	2.02	2.27	2.58	2.88	3.17	3.48	3.80	15.77	10.13	13.02
CAPITAL STOCK	4.31	4.41	4.54	4.77	5.09	5.45	5.84	6.27	6.70	7.14	7.59	5.42	6.70	6.22
CAPACITY UTILIZATION	85.6	89.1	91.4	93.4	92.4	90.7	90.6	90.3	89.7	89.5	89.6	.44	-.20	.06
CAPITAL/OUTPUT RATIO	.31	.30	.28	.27	.28	.29	.29	.30	.30	.31	.31	-.59	1.04	.55
CAPITAL/LABOR RATIO	1.47	1.57	1.55	1.56	1.65	1.76	1.81	1.91	2.00	2.09	2.16	2.92	4.54	3.66
PRODUCTION WORKERS	1055.	1019.	1054.	1096.	1105.	1106.	1145.	1162.	1175.	1195.	1216.	2.00	1.52	1.90
HOURS WORKED PER WEEK	40.7	40.7	41.5	42.0	42.2	42.1	42.4	42.4	42.4	42.4	42.4	.00	.02	.46
HOURLY WAGE RATE	3.53	3.74	3.96	4.23	4.55	4.87	5.17	5.48	5.78	6.05	6.29	6.04	5.04	5.97
SUPPLEMENTS	1.05	1.13	1.39	1.63	1.80	2.16	2.39	2.83	3.00	3.41	3.77	17.50	12.11	14.30
EMPLOYEE COMPENSATION	8.93	9.19	10.39	11.75	12.82	13.96	15.44	16.86	18.04	19.35	20.66	11.01	7.55	9.41
OVERHEAD WORKERS	331.	317.	312.	314.	319.	325.	336.	349.	363.	379.	397.	.63	4.27	2.53
HOURLY WAGE RATE	5.40	5.70	5.94	6.19	6.56	6.95	7.33	7.65	7.90	8.25	8.46	5.09	3.67	4.49
SUPPLEMENTS	.45	.40	.53	.50	.63	.76	.83	.99	1.10	1.24	1.39	12.59	13.75	12.67
EMPLOYEE COMPENSATION	4.17	4.24	4.39	4.62	4.99	5.47	5.96	6.54	7.13	7.75	8.39	6.59	8.03	7.00
UNIT LABOR COST, PCT.	94.50	96.26	91.72	93.82	97.61	103.22	106.24	110.87	114.26	117.15	119.49	3.41	2.98	3.17
GPO PER MAN-HOUR	4.74	5.20	5.51	5.73	5.91	6.07	6.25	6.42	6.59	6.75	6.93	3.54	2.61	3.06
LABOR COST/SALES, PCT.	37.21	35.95	34.90	34.10	33.85	33.86	33.20	33.09	32.80	32.40	32.14	-1.40	-.06	-1.24
PROFITS/SALES, PCT.	3.03	3.00	3.30	3.46	3.30	3.26	3.20	3.16	3.00	3.05	3.04	1.47	-1.33	-.15

SCREW MACH. PROD..BOLTS.NUTS.METAL STAMPINGS

I/O CLASSIFICATION 41

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	10.52	11.49	12.74	14.29	15.70	16.98	18.66	20.28	21.83	23.57	25.40
GROWTH RATE, ANNUAL	.00	9.16	10.93	12.16	9.84	8.13	9.94	8.68	7.63	7.95	7.79
GROWTH RATE, CUMULATIVE	.00	9.16	10.04	10.74	10.52	10.03	10.02	9.83	9.55	9.37	9.21
SHIPMENTS, CONSTANT $	7.78	8.31	8.98	9.79	10.43	10.98	11.65	12.27	12.86	13.53	14.25
GROWTH RATE, ANNUAL	.00	6.85	7.98	9.11	6.52	4.48	6.07	5.37	4.75	5.27	5.31
GROWTH RATE, CUMULATIVE	.00	6.85	7.41	7.98	7.61	6.98	6.96	6.73	6.48	6.35	6.24
PRICE DEFLATOR	1.35	1.38	1.42	1.46	1.50	1.56	1.60	1.65	1.70	1.74	1.78
GROWTH RATE, ANNUAL	.00	2.16	2.74	2.80	3.11	3.50	2.87	3.13	2.75	2.55	2.35
GROWTH RATE, CUMULATIVE	.00	2.16	2.45	2.56	2.70	2.86	2.86	2.90	2.80	2.84	2.79

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR \ ENDING YEAR	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.053	1.000									
1978	1.053	1.053	1.000								
1977	1.051	1.050	1.047	1.000							
1976	1.052	1.051	1.051	1.054	1.000						
1975	1.055	1.056	1.057	1.061	1.069	1.000					
1974	1.053	1.053	1.054	1.056	1.057	1.045	1.000				
1973	1.055	1.055	1.056	1.058	1.060	1.055	1.065	1.000			
1972	1.060	1.060	1.062	1.065	1.067	1.067	1.078	1.091	1.000		
1971	1.062	1.063	1.064	1.067	1.070	1.070	1.079	1.085	1.098	1.000	
1970	1.062	1.063	1.065	1.067	1.070	1.070	1.076	1.080	1.074	1.069	1.000

MACHINERY, EXCEPT ELECTRICAL

SIC CLASSIFICATION(S)
35

I/O CLASSIFICATION(S)

43	44
45	46
47	48
49	50
51	52

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	58.10	58.12	67.00	79.93	91.04	99.72	111.90	124.75	135.23	146.78	158.90	14.45	9.16	11.82
SALES, FTC-SEC, CONST $	50.81	48.67	53.80	61.11	65.73	67.62	72.54	76.79	79.75	83.42	87.42	8.57	4.78	6.72
WHSL PRICES, 1967=100.0	114.5	119.4	124.5	130.8	138.5	147.5	154.3	162.5	169.6	175.9	181.8	5.41	4.18	4.78
GPO, CONSTANT $	22.37	22.65	25.17	28.75	31.12	32.15	34.78	37.17	39.03	41.39	44.06	9.15	6.09	7.67
PROFITS BEFORE TAXES	5.32	4.43	4.93	5.96	6.66	7.05	8.19	8.87	9.56	10.41	11.24	12.33	8.21	10.09
CORPORATE INCOME TAXES	2.63	2.19	2.41	2.89	3.21	3.39	3.91	4.22	4.54	4.93	5.31	11.55	7.91	10.34
PROFITS AFTER TAXES	2.69	2.24	2.51	3.07	3.45	3.67	4.28	4.65	5.02	5.48	5.93	13.10	8.48	11.41
DIVIDENDS	1.29	1.12	1.09	1.16	1.27	1.38	1.55	1.71	1.89	2.07	2.27	5.52	10.12	8.22
RETAINED EARNINGS	1.40	1.12	1.43	1.91	2.18	2.28	2.73	2.93	3.14	3.40	3.65	19.37	7.52	13.99
DEPRECIATION	2.60	2.60	2.87	3.17	3.54	3.96	4.41	4.94	5.50	6.11	6.70	10.26	11.36	10.80
CORPORATE CASH FLOW	5.29	4.92	5.30	6.24	7.00	7.62	8.69	9.59	10.53	11.59	12.71	11.50	9.97	11.12
INVESTMENT	3.47	2.93	3.50	4.50	5.39	6.03	6.73	7.79	8.57	9.49	10.55	19.81	11.00	15.30
CAPITAL STOCK	8.92	9.02	8.90	9.40	10.21	11.14	12.06	13.06	14.12	15.17	16.20	5.43	7.79	6.70
CAPACITY UTILIZATION	92.3	91.3	95.0	103.5	101.7	97.5	96.1	94.6	92.6	91.6	90.9	1.64	-1.30	-.06
CAPITAL/OUTPUT RATIO	.40	.40	.36	.33	.33	.35	.35	.35	.36	.37	.37	-3.44	1.55	-.04
CAPITAL/LABOR RATIO	2.14	2.30	2.19	2.02	2.02	2.13	2.16	2.22	2.32	2.40	2.47	-2.70	3.43	.41
PRODUCTION WORKERS	1310.	1174.	1249.	1400.	1407.	1507.	1579.	1637.	1661.	1695.	1733.	6.44	2.35	4.42
HOURS WORKED PER WEEK	41.1	41.1	42.1	42.9	43.2	43.1	43.4	43.4	43.4	43.5	43.5	1.10	.02	.62
HOURLY WAGE RATE	3.77	3.90	4.20	4.49	4.02	5.16	5.40	5.01	6.13	6.42	6.69	6.73	5.10	5.94
SUPPLEMENTS	1.64	1.64	2.07	2.63	3.07	3.72	4.10	5.06	5.54	6.14	6.04	22.00	13.10	17.21
EMPLOYEE COMPENSATION	12.20	11.62	13.59	16.64	19.10	21.15	23.72	26.55	28.52	30.73	33.03	16.15	0.63	12.31
OVERHEAD WORKERS	654.	612.	657.	737.	021.	093.	970.	1049.	1124.	1201.	1203.	9.09	7.25	0.57
HOURLY WAGE RATE	5.53	5.75	6.04	6.46	7.00	7.50	7.94	0.39	0.00	9.16	9.47	6.06	4.51	5.70
SUPPLEMENTS	.74	.79	.97	1.21	1.51	2.01	2.33	2.96	3.45	4.01	4.67	26.20	10.95	21.75
EMPLOYEE COMPENSATION	0.29	0.12	9.23	11.12	13.46	15.94	10.35	21.25	24.03	26.91	29.95	10.37	13.03	15.61
UNIT LABOR COST, PCT.	91.56	07.14	90.66	96.53	104.06	115.35	120.96	120.50	134.67	139.20	142.95	7.26	4.26	5.65
GPO PER MAN-HOUR	5.30	5.99	6.13	6.10	6.17	6.14	6.23	6.32	6.41	6.54	6.69	.65	1.00	1.24
LABOR COST/SALES, PCT.	35.21	33.96	34.02	34.73	35.04	37.19	37.59	30.31	30.07	39.27	39.63	2.30	1.33	1.73
PROFITS/SALES, PCT.	4.62	3.06	3.75	3.04	3.79	3.60	3.02	3.73	3.71	3.73	3.73	-1.10	-.62	-.37

METALWORKING MACHINERY AND EQUIPMENT

I/O CLASSIFICATION 47

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	7.89	8.31	9.79	11.87	13.39	14.36	16.18	17.91	19.21	20.68	22.25
GROWTH RATE, ANNUAL	.00	5.22	17.81	21.31	12.79	7.21	12.17	11.23	7.26	7.62	7.63
GROWTH RATE, CUMULATIVE	.00	5.22	11.34	14.57	14.12	12.70	12.62	12.42	11.76	11.29	10.92
SHIPMENTS, CONSTANT $	5.35	5.38	6.06	6.99	7.43	7.49	8.02	8.46	8.69	9.00	9.37
GROWTH RATE, ANNUAL	.00	.56	12.66	15.26	6.41	.70	7.08	5.50	2.67	3.59	4.04
GROWTH RATE, CUMULATIVE	.00	.56	6.44	9.30	8.57	6.95	6.97	6.77	6.25	5.95	5.76
PRICE DEFLATOR	1.48	1.54	1.61	1.70	1.80	1.92	2.01	2.12	2.21	2.30	2.38
GROWTH RATE, ANNUAL	.00	4.64	4.57	5.25	6.00	6.46	4.76	5.35	4.47	3.88	3.45
GROWTH RATE, CUMULATIVE	.00	4.64	4.60	4.82	5.11	5.38	5.20	5.29	5.10	5.04	4.80

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR \ ENDING YEAR	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.040	1.000									
1978	1.038	1.036	1.000								
1977	1.034	1.031	1.027	1.000							
1976	1.040	1.039	1.041	1.056	1.000						
1975	1.046	1.047	1.051	1.063	1.071	1.000					
1974	1.039	1.039	1.040	1.044	1.038	1.007	1.000				
1973	1.043	1.043	1.045	1.049	1.047	1.035	1.064	1.000			
1972	1.056	1.058	1.062	1.069	1.072	1.073	1.107	1.153	1.000		
1971	1.064	1.066	1.071	1.078	1.083	1.086	1.114	1.140	1.127	1.000	
1970	1.058	1.060	1.062	1.068	1.070	1.069	1.086	1.093	1.064	1.086	1.000

GENERAL INDUSTRY MACHINERY AND EQUIPMENT

I/O CLASSIFICATION 49

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	8.41	8.82	10.44	12.75	14.35	15.33	17.22	19.28	20.68	22.25	23.97
GROWTH RATE, ANNUAL	.00	4.91	18.34	22.15	12.52	6.79	12.35	11.97	7.27	7.59	7.75
GROWTH RATE, CUMULATIVE	.00	4.91	11.42	14.89	14.29	12.75	12.69	12.58	11.90	11.42	11.04
SHIPMENTS, CONSTANT $	6.67	6.71	7.62	8.86	9.38	9.38	10.06	10.67	10.95	11.35	11.84
GROWTH RATE, ANNUAL	.00	.67	13.55	16.16	5.96	-.05	7.26	6.07	2.65	3.63	4.32
GROWTH RATE, CUMULATIVE	.00	.67	6.92	9.91	8.91	7.86	7.89	6.94	6.40	6.09	5.91
PRICE DEFLATOR	1.26	1.31	1.37	1.44	1.53	1.63	1.71	1.81	1.89	1.96	2.02
GROWTH RATE, ANNUAL	.00	4.21	4.22	5.16	6.19	6.85	4.75	5.56	4.49	3.81	3.38
GROWTH RATE, CUMULATIVE	.00	4.21	4.21	4.53	4.94	5.32	5.22	5.27	5.17	5.02	4.85

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.043	1.000									
1978	1.040	1.036	1.000								
1977	1.035	1.031	1.027	1.000							
1976	1.042	1.041	1.043	1.061	1.000						
1975	1.048	1.049	1.053	1.067	1.073	1.000					
1974	1.040	1.039	1.039	1.044	1.035	.999	1.000				
1973	1.042	1.042	1.043	1.048	1.043	1.029	1.068	1.000			
1972	1.057	1.059	1.062	1.078	1.072	1.071	1.109	1.162	1.000		
1971	1.065	1.068	1.072	1.088	1.084	1.087	1.118	1.148	1.136	1.000	
1970	1.059	1.061	1.064	1.069	1.071	1.071	1.089	1.099	1.069	1.087	1.000

MACHINE SHOP PRODUCTS

I/O CLASSIFICATION 58

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	4.19	4.50	5.03	5.84	6.64	7.46	8.40	9.40	10.31	11.29	12.20
GROWTH RATE, ANNUAL	.00	7.44	11.85	15.97	13.84	12.35	12.53	11.86	9.76	9.44	8.05
GROWTH RATE, CUMULATIVE	.00	7.44	9.62	11.70	12.23	12.25	12.30	12.24	11.93	11.65	11.36
SHIPMENTS, CONSTANT $	3.12	3.18	3.30	3.60	3.89	4.04	4.30	4.51	4.70	4.92	5.16
GROWTH RATE, ANNUAL	.00	1.96	6.19	8.94	5.76	3.70	6.47	4.91	4.24	4.77	4.83
GROWTH RATE, CUMULATIVE	.00	1.96	4.05	5.66	5.68	5.20	5.40	5.40	5.25	5.20	5.16
PRICE DEFLATOR	1.34	1.41	1.49	1.59	1.71	1.05	1.95	2.00	2.19	2.29	2.30
GROWTH RATE, ANNUAL	.00	5.30	5.32	6.45	7.64	8.34	5.70	6.62	5.30	4.46	3.03
GROWTH RATE, CUMULATIVE	.00	5.30	5.35	5.72	6.20	6.62	6.47	6.49	6.34	6.13	5.90

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.048	1.000									
1978	1.048	1.048	1.000								
1977	1.046	1.045	1.042	1.000							
1976	1.047	1.046	1.046	1.049	1.000						
1975	1.050	1.051	1.052	1.057	1.065	1.000					
1974	1.048	1.048	1.048	1.050	1.051	1.037	1.000				
1973	1.050	1.050	1.050	1.052	1.053	1.047	1.050	1.000			
1972	1.054	1.055	1.057	1.059	1.062	1.061	1.073	1.009	1.000		
1971	1.055	1.056	1.057	1.060	1.062	1.061	1.070	1.076	1.062	1.000	
1970	1.052	1.052	1.053	1.054	1.055	1.053	1.057	1.057	1.041	1.020	1.000

ELECTRICAL MACHINERY

SIC CLASSIFICATION(S)
36

I/O CLASSIFICATION(S)

53 54
55 56
57 58

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CFQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES,YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	70.31	74.81	86.71	101.14	110.92	119.07	133.36	147.58	160.16	174.65	190.82	12.32	9.37	10.96
SALES, FTC-SEC, CONST $	66.83	69.46	80.35	93.38	101.10	106.07	117.26	127.39	136.14	146.59	158.47	11.16	7.82	9.60
WHSL PRICES, 1967=100.0	105.2	107.7	107.9	108.3	109.7	112.3	113.7	115.8	117.6	119.1	120.4	1.04	1.44	1.25
GPO, CONSTANT $	24.98	24.74	28.14	32.79	35.17	36.56	40.71	44.61	48.04	52.43	57.68	10.25	9.10	9.86
PROFITS BEFORE TAXES	4.31	4.78	5.74	6.78	6.92	7.00	8.00	8.58	9.10	9.83	10.64	10.47	7.41	9.51
CORPORATE INCOME TAXES	1.96	2.21	2.68	3.12	3.22	3.26	3.71	3.98	4.22	4.55	4.92	10.21	7.29	9.31
PROFITS AFTER TAXES	2.35	2.49	3.06	3.58	3.70	3.74	4.29	4.60	4.89	5.28	5.73	10.71	7.51	9.68
DIVIDENDS	1.23	1.24	1.33	1.46	1.58	1.68	1.84	2.01	2.19	2.39	2.62	7.96	9.25	8.70
RETAINED EARNINGS	1.12	1.25	1.73	2.12	2.12	2.06	2.44	2.59	2.70	2.89	3.10	13.23	6.15	10.60
DEPRECIATION	2.12	2.23	2.37	2.59	2.85	3.14	3.48	3.80	4.33	4.83	5.41	9.01	11.65	10.36
CORPORATE CASH FLOW	4.46	4.72	5.43	6.17	6.55	6.89	7.76	8.40	9.21	10.11	11.13	9.91	9.42	10.01
INVESTMENT	2.27	2.02	2.22	2.77	3.26	3.66	4.17	4.86	5.51	6.24	7.11	15.98	14.23	15.00
CAPITAL STOCK	5.29	5.54	5.62	5.88	6.32	6.85	7.42	8.05	8.78	9.56	10.43	5.45	8.90	7.29
CAPACITY UTILIZATION	84.9	81.1	85.3	90.8	89.6	86.4	86.3	87.1	86.7	87.2	88.9	1.58	.75	1.03
CAPITAL/OUTPUT RATIO	.21	.22	.20	.18	.18	.19	.18	.18	.18	.18	.18	-4.41	-.14	-2.34
CAPITAL/LABOR RATIO	1.33	1.58	1.45	1.41	1.49	1.62	1.65	1.70	1.78	1.84	1.88	1.86	3.42	2.56
PRODUCTION WORKERS	1264.	1187.	1282.	1417.	1432.	1489.	1491.	1550.	1581.	1635.	1704.	4.37	3.39	4.09
HOURS WORKED PER WEEK	39.9	39.6	40.1	40.4	40.5	40.5	40.6	40.6	40.5	40.5	40.5	.55	-.06	.26
HOURLY WAGE RATE	3.29	3.48	3.68	3.92	4.19	4.47	4.75	5.03	5.30	5.55	5.77	6.42	5.02	5.78
SUPPLEMENTS	1.02	1.06	1.35	1.67	1.83	2.15	2.43	2.94	3.23	3.63	4.11	19.31	14.07	16.23
EMPLOYEE COMPENSATION	9.65	9.57	11.19	13.35	14.48	15.39	17.37	19.40	20.89	22.74	24.83	12.60	9.35	11.17
OVERHEAD WORKERS	649.	598.	573.	576.	592.	612.	650.	704.	767.	843.	935.	.50	9.51	5.10
HOURLY WAGE RATE	5.53	5.84	6.18	6.57	7.05	7.56	8.05	8.54	9.04	9.50	9.91	6.66	5.35	6.05
SUPPLEMENTS	.87	.89	.99	1.10	1.23	1.53	1.73	2.19	2.59	3.10	3.76	14.54	21.35	17.36
EMPLOYEE COMPENSATION	8.34	8.15	8.34	8.97	9.91	11.15	12.62	14.70	17.00	19.75	23.04	8.14	16.24	12.24
UNIT LABOR COST, PCT.	72.00	71.63	69.42	68.07	69.34	72.59	73.67	76.44	78.87	81.05	82.99	.33	3.02	1.65
GPO PER MAN-HOUR	6.29	6.71	7.20	7.85	8.28	8.63	9.04	9.42	9.75	10.00	10.42	6.49	3.61	5.01
LABOR COST/SALES, PCT.	25.50	23.69	22.53	22.07	21.99	22.29	22.49	23.11	23.66	24.33	25.09	-1.52	2.77	.64
PROFITS/SALES, PCT.	3.34	3.33	3.53	3.54	3.34	3.14	3.21	3.12	3.05	3.02	3.00	-1.44	-1.70	-1.16

MISC. ELECTRICAL MACHINERY AND EQUIPMENT

I/O CLASSIFICATION 58

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	3.98	4.23	4.84	5.62	6.07	6.40	7.11	7.83	8.35	8.90	9.51
GROWTH RATE, ANNUAL	.00	6.24	14.57	16.08	8.06	5.42	11.09	10.10	6.57	6.62	6.78
GROWTH RATE, CUMULATIVE	.00	6.24	10.33	12.22	11.16	9.99	10.17	10.17	9.71	9.37	9.10
SHIPMENTS, CONSTANT $	3.11	3.17	3.51	3.90	4.01	3.99	4.25	4.46	4.57	4.71	4.88
GROWTH RATE, ANNUAL	.00	1.96	10.63	11.32	2.64	-.55	6.60	4.99	2.40	3.02	3.61
GROWTH RATE, CUMULATIVE	.00	1.96	6.21	7.80	6.55	5.09	5.34	5.29	4.92	4.71	4.60
PRICE DEFLATOR	1.20	1.33	1.38	1.44	1.51	1.61	1.67	1.76	1.83	1.89	1.95
GROWTH RATE, ANNUAL	.00	4.20	3.56	4.20	5.20	6.00	4.21	4.95	4.07	3.49	3.06
GROWTH RATE, CUMULATIVE	.00	4.20	3.88	4.02	4.33	4.66	4.59	4.64	4.57	4.45	4.31

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.036	1.000									
1978	1.033	1.030	1.000								
1977	1.030	1.027	1.024	1.000							
1976	1.035	1.035	1.037	1.050	1.000						
1975	1.041	1.042	1.046	1.058	1.066	1.000					
1974	1.033	1.033	1.033	1.036	1.038	.995	1.000				
1973	1.032	1.032	1.032	1.034	1.029	1.018	1.026	1.000			
1972	1.042	1.043	1.045	1.049	1.049	1.044	1.069	1.113	1.000		
1971	1.049	1.051	1.054	1.059	1.060	1.059	1.081	1.113	1.106	1.000	
1970	1.060	1.067	1.069	1.073	1.073	1.071	1.085	1.079	1.062	1.020	1.000

TEXTILE MILL PRODUCTS

SIC CLASSIFICATION(S)
22

I/O CLASSIFICATION(S)
16 17

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	21.60	23.19	25.86	28.68	30.95	32.42	34.98	37.24	39.32	41.50	43.79	8.73	5.77	7.32
SALES, FTC-SEC, CONST $	20.85	22.26	24.20	26.16	27.79	28.62	30.67	32.85	33.41	34.95	36.58	6.49	4.50	5.67
WHSL PRICES, 1967=100.0	103.6	104.2	106.5	109.6	111.4	113.3	114.1	116.2	117.7	118.7	119.7	2.11	1.22	1.55
GPO, CONSTANT $	6.40	6.66	7.23	7.80	8.23	8.45	9.02	9.40	9.79	10.23	10.71	6.13	4.37	5.42
PROFITS BEFORE TAXES	.80	.96	1.30	1.49	1.55	1.51	1.74	1.85	1.90	2.03	2.16	11.81	5.50	9.35
CORPORATE INCOME TAXES	.47	.47	.61	.68	.70	.67	.76	.80	.81	.85	.90	9.19	4.42	7.45
PROFITS AFTER TAXES	.41	.49	.69	.81	.86	.84	.98	1.06	1.09	1.17	1.26	14.89	6.45	10.93
DIVIDENDS	.22	.22	.23	.25	.27	.28	.31	.33	.36	.38	.41	6.44	7.33	7.85
RETAINED EARNINGS	.19	.27	.46	.56	.59	.55	.67	.72	.73	.79	.85	19.36	6.00	13.45
DEPRECIATION	.62	.69	.70	.74	.81	.89	.97	1.05	1.13	1.22	1.30	6.69	7.53	7.30
CORPORATE CASH FLOW	1.04	1.18	1.39	1.55	1.67	1.73	1.95	2.11	2.23	2.39	2.56	9.98	6.99	8.94
INVESTMENT	.56	.59	.71	.94	1.19	1.28	1.35	1.44	1.53	1.60	1.69	21.23	5.86	12.32
CAPITAL STOCK	2.76	2.72	2.73	2.82	3.04	3.29	3.52	3.71	3.88	4.03	4.17	4.87	4.36	4.85
CAPACITY UTILIZATION	88.3	86.2	88.2	89.8	88.6	86.5	85.4	84.3	83.2	82.2	81.5	.89	-1.17	-.63
CAPITAL/OUTPUT RATIO	.43	.41	.38	.36	.37	.39	.39	.39	.40	.39	.39	-1.18	.00	-.53
CAPITAL/LABOR RATIO	1.38	1.35	1.29	1.29	1.36	1.48	1.53	1.60	1.66	1.70	1.73	2.36	3.18	2.84
PRODUCTION WORKERS	847.	832.	851.	875.	887.	882.	894.	901.	903.	907.	914.	1.47	.54	1.05
HOURS WORKED PER WEEK	39.9	41.0	42.1	42.5	42.5	42.3	43.1	42.9	43.0	43.2	43.4	.79	.19	.62
HOURLY WAGE RATE	2.45	2.59	2.72	2.94	3.15	3.30	3.41	3.57	3.71	3.80	3.87	6.23	3.19	4.57
SUPPLEMENTS	.44	.50	.60	.70	.70	.90	.96	1.11	1.19	1.27	1.37	16.86	9.25	11.94
EMPLOYEE COMPENSATION	4.75	5.09	5.66	6.39	6.96	7.30	7.79	8.29	8.60	9.01	9.34	9.44	4.65	6.99
OVERHEAD WORKERS	118.	117.	120.	125.	131.	136.	141.	147.	153.	159.	165.	3.77	3.89	3.80
HOURLY WAGE RATE	5.18	5.50	5.76	6.11	6.53	6.96	7.36	7.77	8.20	8.61	8.99	6.00	5.12	5.62
SUPPLEMENTS	.15	.16	.19	.22	.25	.31	.34	.41	.46	.52	.59	17.54	14.34	15.24
EMPLOYEE COMPENSATION	1.42	1.50	1.63	1.81	2.03	2.27	2.51	2.79	3.07	3.36	3.67	10.96	9.96	10.44
UNIT LABOR COST, PCT.	95.16	90.94	100.77	105.16	109.30	113.30	114.16	117.86	120.04	120.97	121.53	3.45	1.50	2.31
GPO PER MAN-HOUR	3.23	3.30	3.42	3.56	3.68	3.80	3.93	4.06	4.19	4.32	4.45	3.59	3.10	3.30
LABOR COST/SALES, PCT.	28.54	28.41	28.16	28.50	29.05	29.53	29.45	29.76	29.89	29.82	29.72	.97	.23	.50
PROFITS/SALES, PCT.	1.92	2.13	2.67	2.82	2.77	2.50	2.80	2.83	2.77	2.82	2.87	4.95	.63	3.30

MISC. TEXTILE GOODS AND FLOOR COVERINGS

I/O CLASSIFICATION 17

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	5.66	6.36	7.81	7.82	8.56	9.15	9.87	10.69	11.47	12.28	13.16
GROWTH RATE, ANNUAL	.00	12.42	10.23	11.53	9.52	6.83	7.93	8.22	7.33	7.04	7.19
GROWTH RATE, CUMULATIVE	.00	12.42	11.32	11.39	10.92	10.09	9.73	9.51	9.23	8.99	8.81
SHIPMENTS, CONSTANT $	6.00	6.87	7.55	8.35	9.11	9.72	10.56	11.37	12.20	13.09	14.00
GROWTH RATE, ANNUAL	.00	13.06	9.85	10.61	9.03	6.78	8.64	7.68	7.27	7.31	7.51
GROWTH RATE, CUMULATIVE	.00	13.06	11.44	11.16	10.63	9.84	9.64	9.36	9.10	8.90	8.76
PRICE DEFLATOR	.93	.93	.93	.94	.94	.94	.93	.94	.94	.94	.93
GROWTH RATE, ANNUAL	.00	-.57	.35	.83	.45	.05	-.65	.58	.05	-.26	-.30
GROWTH RATE, CUMULATIVE	.00	-.57	-.11	.20	.24	.22	.08	.14	.13	.08	.05

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.075	1.000									
1978	1.074	1.073	1.000								
1977	1.074	1.073	1.073	1.000							
1976	1.074	1.074	1.075	1.077	1.000						
1975	1.077	1.077	1.079	1.082	1.086	1.000					
1974	1.075	1.075	1.076	1.077	1.077	1.068	1.000				
1973	1.077	1.078	1.079	1.080	1.081	1.079	1.090	1.000			
1972	1.091	1.082	1.083	1.085	1.088	1.088	1.090	1.106	1.000		
1971	1.093	1.084	1.085	1.088	1.090	1.091	1.090	1.102	1.090	1.000	
1970	1.000	1.000	1.091	1.094	1.096	1.090	1.106	1.112	1.114	1.131	1.000

APPAREL AND RELATED PRODUCTS

SIC CLASSIFICATION(S)
23

I/O CLASSIFICATION(S)
18 19

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES,YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	22.01	22.65	25.52	28.77	31.87	34.15	37.15	40.14	42.82	45.49	48.28	10.81	6.77	8.78
SALES, FTC-SEC, CONST $	19.83	20.08	22.02	24.15	25.75	26.39	28.04	29.26	30.38	31.55	32.83	7.06	4.03	5.61
WHSL PRICES, 1967=100.0	111.0	112.8	115.9	119.1	123.8	129.4	132.5	137.2	141.0	144.2	147.1	3.50	2.64	2.99
GPO, CONSTANT $	6.76	7.39	7.84	8.39	8.87	9.10	9.56	9.93	10.28	10.64	11.04	5.35	3.68	4.57
PROFITS BEFORE TAXES	.82	.83	1.05	1.21	1.36	1.49	1.71	1.90	2.05	2.22	2.38	15.84	8.41	12.43
CORPORATE INCOME TAXES	.40	.40	.48	.54	.60	.65	.74	.81	.87	.93	.99	13.25	7.80	10.74
PROFITS AFTER TAXES	.43	.43	.57	.66	.76	.84	.97	1.09	1.18	1.29	1.38	18.00	9.22	13.83
DIVIDENDS	.12	.12	.13	.14	.15	.17	.19	.21	.24	.26	.28	10.19	9.79	10.24
RETAINED EARNINGS	.31	.31	.44	.53	.61	.67	.78	.88	.94	1.03	1.10	20.63	9.07	14.95
DEPRECIATION	.21	.21	.23	.26	.29	.31	.34	.36	.39	.41	.44	10.10	6.63	8.31
CORPORATE CASH FLOW	.64	.64	.80	.92	1.05	1.15	1.31	1.45	1.57	1.70	1.82	15.62	8.55	12.23
INVESTMENT	.27	.27	.35	.41	.46	.49	.52	.56	.61	.65	.70	15.75	7.66	11.83
CAPITAL STOCK	.91	.92	.99	1.07	1.18	1.27	1.36	1.43	1.51	1.58	1.65	8.35	6.99	6.66
CAPACITY UTILIZATION	86.7	92.0	92.7	94.4	95.5	94.1	94.3	93.9	93.6	93.4	93.3	.57	-.26	.16
CAPITAL/OUTPUT RATIO	.13	.13	.13	.13	.13	.14	.14	.14	.15	.15	.15	2.87	1.21	1.97
CAPITAL/LABOR RATIO	.35	.34	.35	.37	.39	.41	.43	.44	.46	.47	.48	4.41	2.97	3.77
PRODUCTION WORKERS	1214.	1254.	1293.	1350.	1401.	1419.	1454.	1484.	1509.	1533.	1562.	3.13	1.82	2.47
HOURS WORKED PER WEEK	35.3	35.6	36.0	36.3	36.4	36.3	36.5	36.5	36.5	36.5	36.5	.50	.02	.27
HOURLY WAGE RATE	2.39	2.48	2.57	2.72	2.92	3.00	3.22	3.37	3.50	3.60	3.60	5.61	3.39	4.50
SUPPLEMENTS	.61	.69	.82	.95	1.00	1.30	1.39	1.64	1.77	1.92	2.09	14.94	10.69	13.06
EMPLOYEE COMPENSATION	5.93	6.45	7.04	7.89	8.81	9.57	10.28	11.12	11.79	12.48	13.02	10.33	6.07	8.11
OVERHEAD WORKERS	171.	171.	175.	183.	190.	196.	202.	209.	214.	220.	226.	3.43	2.79	3.13
HOURLY WAGE RATE	4.40	4.86	5.32	5.44	5.83	6.31	6.68	6.90	7.42	7.77	8.07	6.73	4.84	5.79
SUPPLEMENTS	.17	.19	.24	.26	.30	.37	.41	.48	.54	.60	.67	17.90	13.47	14.95
EMPLOYEE COMPENSATION	1.76	1.92	2.17	2.33	2.60	2.94	3.22	3.51	3.85	4.16	4.47	11.22	8.54	9.80
UNIT LABOR COST, PCT.	113.84	113.30	117.51	121.79	128.62	137.42	141.27	147.35	152.80	155.62	158.30	4.92	2.89	3.78
GPO PER MAN-HOUR	2.62	2.76	2.81	2.87	2.91	2.95	3.01	3.06	3.11	3.16	3.21	1.68	1.68	1.72
LABOR COST/SALES, PCT.	34.96	37.00	36.10	35.52	35.81	36.63	36.35	36.46	36.52	36.40	36.21	-.25	-.10	-.24
PROFITS/SALES, PCT.	1.94	1.90	2.22	2.31	2.39	2.45	2.62	2.72	2.75	2.83	2.86	6.57	2.20	4.65

MISC. FABRICATED TEXTILE PRODUCTS

I/O CLASSIFICATION 19

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	4.73	5.23	5.83	6.57	7.31	7.91	8.59	9.35	10.06	10.76	11.51
GROWTH RATE, ANNUAL	.00	10.58	11.60	12.58	11.38	8.12	8.59	8.95	7.54	6.98	6.93
GROWTH RATE, CUMULATIVE	.00	10.58	11.09	11.59	11.53	10.84	10.46	10.25	9.91	9.58	9.31
SHIPMENTS, CONSTANT $	4.06	4.43	4.79	5.22	5.60	5.82	6.20	6.52	6.83	7.16	7.52
GROWTH RATE, ANNUAL	.00	9.01	8.29	8.89	7.30	3.91	6.60	5.17	4.77	4.77	5.00
GROWTH RATE, CUMULATIVE	.00	9.01	8.65	8.73	8.37	7.46	7.32	7.01	6.73	6.51	6.36
PRICE DEFLATOR	1.16	1.18	1.22	1.26	1.31	1.36	1.38	1.43	1.47	1.50	1.53
GROWTH RATE, ANNUAL	.00	1.43	3.06	3.39	3.80	4.05	1.87	3.59	2.65	2.11	1.94
GROWTH RATE, CUMULATIVE	.00	1.43	2.24	2.63	2.92	3.14	2.93	3.02	2.98	2.88	2.78

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.050	1.000									
1978	1.049	1.048	1.000								
1977	1.048	1.048	1.048	1.000							
1976	1.049	1.049	1.050	1.052	1.000						
1975	1.053	1.053	1.055	1.059	1.066	1.000					
1974	1.050	1.050	1.051	1.052	1.052	1.039	1.000				
1973	1.054	1.054	1.055	1.057	1.059	1.056	1.073	1.000			
1972	1.058	1.059	1.061	1.064	1.067	1.067	1.081	1.089	1.000		
1971	1.061	1.062	1.064	1.067	1.070	1.071	1.082	1.096	1.083	1.000	
1970	1.064	1.065	1.067	1.070	1.073	1.075	1.084	1.087	1.087	1.090	1.000

CHEMICAL AND ALLIED PRODUCTS

SIC CLASSIFICATION(S)
28

I/O CLASSIFICATION(S)
27 28
29 30

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	58.05	61.33	68.55	75.91	82.66	88.64	96.28	103.25	110.13	117.48	125.30	9.65	6.81	8.26
SALES, FTC-SEC, CONST $	56.92	58.96	66.05	72.57	76.80	78.79	84.65	87.83	91.47	95.84	100.66	7.51	4.43	6.12
WHSL PRICES, 1967=100.0	102.0	104.0	103.0	104.6	107.6	112.5	113.7	117.6	120.4	122.6	124.5	1.99	2.28	2.82
GPO, CONSTANT $	20.65	21.14	23.94	26.65	28.52	29.91	32.93	34.94	37.07	39.58	42.20	9.86	6.45	8.81
PROFITS BEFORE TAXES	6.10	6.33	8.14	9.23	9.34	9.09	10.10	10.43	10.71	11.34	11.97	9.47	4.12	7.33
CORPORATE INCOME TAXES	2.75	2.75	3.56	4.03	4.07	3.95	4.43	4.53	4.65	4.92	5.19	9.45	4.05	7.30
PROFITS AFTER TAXES	3.43	3.58	4.59	5.20	5.27	5.14	5.75	5.90	6.07	6.42	6.78	9.48	4.18	7.35
DIVIDENDS	1.92	1.90	2.00	2.29	2.45	2.56	2.77	2.97	3.17	3.40	3.66	7.75	7.19	7.54
RETAINED EARNINGS	1.51	1.68	2.50	2.91	2.82	2.58	2.99	2.93	2.90	3.02	3.12	11.35	1.11	7.14
DEPRECIATION	2.59	2.83	3.11	3.33	3.66	4.05	4.47	5.01	5.56	6.14	6.75	9.40	10.96	10.15
CORPORATE CASH FLOW	6.02	6.41	7.70	8.53	8.92	9.19	10.23	10.91	11.62	12.56	13.53	9.45	7.25	8.64
INVESTMENT	3.44	3.20	3.24	4.34	5.54	6.46	6.87	8.14	8.84	9.64	10.59	10.52	11.41	13.92
CAPITAL STOCK	9.15	9.29	9.23	9.43	10.22	11.33	12.30	13.43	14.57	15.62	16.66	5.10	7.71	6.71
CAPACITY UTILIZATION	90.1	88.4	95.7	101.1	98.0	94.0	93.6	90.9	88.2	86.6	85.1	1.54	-2.34	-.42
CAPITAL/OUTPUT RATIO	.44	.44	.39	.35	.36	.38	.38	.38	.39	.39	.39	-3.61	1.10	-1.19
CAPITAL/LABOR RATIO	4.07	4.30	4.12	3.99	4.14	4.45	4.63	4.84	5.06	5.23	5.37	.83	3.80	2.51
PRODUCTION WORKERS	606.	582.	593.	617.	636.	645.	663.	679.	698.	702.	715.	2.59	1.89	2.31
HOURS WORKED PER WEEK	41.6	41.6	42.1	42.2	42.2	42.1	42.5	42.4	42.4	42.5	42.6	.33	.06	.2
HOURLY WAGE RATE	3.69	3.92	4.17	4.44	4.78	5.16	5.50	5.84	6.20	6.53	6.82	7.07	5.55	6.3
SUPPLEMENTS	.90	1.07	1.29	1.49	1.68	2.06	2.20	2.72	3.00	3.34	3.72	17.74	13.11	14.84
EMPLOYEE COMPENSATION	5.83	6.81	6.70	7.51	8.36	9.35	10.33	11.45	12.43	13.46	14.52	11.67	8.89	10.20
OVERHEAD WORKERS	451.	433.	454.	484.	515.	546.	581.	616.	652.	690.	729.	5.90	5.85	5.97
HOURLY WAGE RATE	5.83	6.21	6.51	6.93	7.43	7.95	8.47	8.96	9.45	9.89	10.29	6.37	4.97	5.76
SUPPLEMENTS	.80	.86	1.03	1.23	1.43	1.84	2.09	2.60	2.90	3.44	3.97	20.93	17.39	18.54
EMPLOYEE COMPENSATION	6.27	6.45	7.17	8.20	9.40	10.87	12.33	14.09	15.80	17.63	19.57	13.93	12.25	13.12
UNIT LABOR COST, PCT.	58.61	58.96	57.95	58.92	62.26	67.62	68.80	73.10	76.16	78.53	80.63	3.48	6.85	3.54
GPO PER MAN-HOUR	9.10	9.79	10.68	11.29	11.56	11.73	12.32	12.58	12.88	13.26	13.64	4.63	2.58	3.75
LABOR COST/SALES, PCT.	20.84	20.33	20.24	20.69	21.48	22.81	23.53	24.74	25.63	26.46	27.21	2.93	3.78	3.29
PROFITS/SALES, PCT.	5.91	5.83	6.69	6.84	6.37	5.80	5.98	5.71	5.51	5.47	5.41	-.15	-2.47	-.84

PLASTICS AND SYNTHETIC MATERIALS

I/O CLASSIFICATION 28

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	10.37	11.37	13.09	14.51	15.35	15.86	17.61	18.47	19.42	20.61	21.86
GROWTH RATE, ANNUAL	.00	9.63	15.13	10.81	5.83	3.30	11.03	4.88	5.17	6.12	6.03
GROWTH RATE, CUMULATIVE	.00	9.63	12.34	11.83	10.30	8.86	9.22	8.59	8.16	7.93	7.74
SHIPMENTS, CONSTANT $	13.30	14.87	17.53	19.86	21.44	22.55	25.63	27.43	29.49	32.04	34.01
GROWTH RATE, ANNUAL	.00	11.83	17.84	13.32	7.97	5.16	13.63	7.04	7.50	8.64	8.65
GROWTH RATE, CUMULATIVE	.00	11.83	14.80	14.30	12.69	11.14	11.55	10.90	10.46	10.26	10.10
PRICE DEFLATOR	.70	.76	.75	.73	.72	.70	.69	.67	.66	.64	.63
GROWTH RATE, ANNUAL	.00	-1.97	-2.30	-2.21	-1.90	-1.77	-2.29	-2.02	-2.17	-2.32	-2.41
GROWTH RATE, CUMULATIVE	.00	-1.97	-2.14	-2.16	-2.12	-2.05	-2.09	-2.00	-2.09	-2.12	-2.15

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.007	1.000									
1978	1.006	1.006	1.000								
1977	1.003	1.001	1.005	1.000							
1976	1.000	1.007	1.003	1.000	1.000						
1975	1.001	1.002	1.004	1.003	1.136	1.000					
1974	1.004	1.004	1.003	1.006	1.093	1.052	1.000				
1973	1.003	1.003	1.002	1.004	1.089	1.066	1.000	1.000			
1972	1.000	1.000	1.001	1.004	1.100	1.000	1.106	1.133	1.000		
1971	1.000	1.101	1.103	1.107	1.115	1.110	1.130	1.156	1.170	1.000	
1970	1.101	1.103	1.105	1.109	1.116	1.111	1.127	1.143	1.140	1.110	1.000

PAINTS AND ALLIED PRODUCTS

I/O CLASSIFICATION 38

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	3.16	3.55	3.94	4.43	4.73	4.98	5.38	5.84	6.18	6.55	6.95
GROWTH RATE, ANNUAL	.00	12.36	10.84	12.50	6.63	5.36	8.11	8.57	5.80	5.86	6.12
GROWTH RATE, CUMULATIVE	.00	12.36	11.60	11.98	10.56	9.50	9.27	9.17	8.74	8.42	8.18
SHIPMENTS, CONSTANT $	2.67	2.92	3.10	3.40	3.56	3.57	3.75	3.91	4.00	4.11	4.24
GROWTH RATE, ANNUAL	.00	9.33	8.91	9.41	2.50	.25	5.04	4.24	2.25	2.67	3.19
GROWTH RATE, CUMULATIVE	.00	9.33	9.12	9.21	7.49	6.01	5.84	5.61	5.19	4.90	4.73
PRICE DEFLATOR	1.10	1.22	1.24	1.27	1.33	1.39	1.43	1.49	1.55	1.59	1.64
GROWTH RATE, ANNUAL	.00	2.70	1.77	2.02	4.03	5.10	2.93	4.16	3.47	3.10	2.04
GROWTH RATE, CUMULATIVE	.00	2.70	2.27	2.46	2.05	3.29	3.23	3.37	3.30	3.25	3.20

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.032	1.000									
1978	1.029	1.027	1.000								
1977	1.027	1.025	1.022	1.000							
1976	1.031	1.030	1.032	1.042	1.000						
1975	1.035	1.035	1.038	1.046	1.050	1.000					
1974	1.029	1.029	1.029	1.032	1.026	1.003	1.000				
1973	1.029	1.028	1.028	1.030	1.026	1.014	1.025	1.000			
1972	1.037	1.037	1.039	1.042	1.042	1.040	1.059	1.094	1.000		
1971	1.042	1.044	1.046	1.050	1.052	1.052	1.069	1.092	1.099	1.000	
1970	1.047	1.049	1.052	1.05[illegible]	1.058	1.060	1.075	1.092	1.091	1.093	1.000

RUBBER AND MISC. PLASTIC PRODUCTS

SIC CLASSIFICATION(S)
30

I/O CLASSIFICATION(S)
32

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	16.67	17.56	20.19	22.42	23.80	24.87	27.61	29.13	30.76	32.75	34.81	9.09	5.96	7.90
SALES, FTC-SEC, CONST $	15.35	16.20	17.56	18.58	18.50	17.96	19.19	19.26	19.64	20.21	21.00	2.60	2.20	2.92
WHSL PRICES, 1967=100.0	108.6	108.4	115.0	120.7	129.1	138.5	143.9	151.2	156.6	162.0	165.7	6.32	3.60	4.83
GPO, CONSTANT $	7.09	8.43	9.59	10.68	11.39	11.80	13.10	13.85	14.66	15.60	16.63	8.96	6.14	7.84
PROFITS BEFORE TAXES	.85	1.02	1.00	1.15	1.16	1.10	1.33	1.33	1.54	1.68	1.85	3.72	8.59	6.85
CORPORATE INCOME TAXES	.40	.47	.50	.52	.53	.53	.59	.60	.68	.74	.81	2.87	8.45	6.12
PROFITS AFTER TAXES	.46	.54	.50	.63	.64	.65	.73	.74	.86	.94	1.04	4.44	9.00	7.44
DIVIDENDS	.23	.23	.24	.26	.28	.30	.34	.38	.42	.48	.55	6.84	12.82	10.03
RETAINED EARNINGS	.22	.31	.34	.37	.36	.34	.40	.36	.43	.46	.49	2.55	5.46	5.17
DEPRECIATION	.60	.66	.72	.82	.95	1.10	1.29	1.50	1.74	2.00	2.30	13.90	15.60	14.95
CORPORATE CASH FLOW	1.05	1.20	1.30	1.45	1.59	1.75	2.02	2.24	2.59	2.94	3.33	9.91	13.33	12.03
INVESTMENT	.94	.80	1.14	1.49	1.81	2.00	2.44	2.85	3.22	3.63	4.00	26.93	13.78	19.82
CAPITAL STOCK	2.52	2.52	2.56	2.80	3.16	3.56	3.99	4.45	4.94	5.44	5.97	9.02	10.63	10.05
CAPACITY UTILIZATION	92.6	95.3	101.0	100.7	96.5	92.1	91.0	89.6	88.1	87.5	87.1	-.84	-1.29	-.99
CAPITAL/OUTPUT RATIO	.35	.30	.27	.26	.28	.30	.30	.32	.34	.35	.36	.80	4.24	2.05
CAPITAL/LABOR RATIO	2.11	2.05	1.85	1.80	1.86	1.97	2.03	2.15	2.20	2.39	2.50	-1.81	5.30	2.22
PRODUCTION WORKERS	436.	451.	498.	554.	595.	625.	673.	701.	720.	756.	784.	8.40	3.92	6.33
HOURS WORKED PER WEEK	40.3	40.6	41.4	42.0	42.2	42.2	42.5	42.6	42.6	42.7	42.7	.90	.11	.56
HOURLY WAGE RATE	3.20	3.37	3.56	3.77	4.03	4.30	4.56	4.81	5.07	5.30	5.50	6.25	4.82	5.50
SUPPLEMENTS	.51	.59	.77	.95	1.12	1.41	1.62	1.96	2.20	2.40	2.79	24.31	14.61	18.86
EMPLOYEE COMPENSATION	3.43	3.81	4.59	5.51	6.39	7.31	8.40	9.43	10.36	11.36	12.30	17.73	10.10	14.00
OVERHEAD WORKERS	135.	132.	149.	169.	190.	200.	229.	249.	269.	289.	309.	12.14	7.80	9.95
HOURLY WAGE RATE	4.90	5.27	5.75	5.84	6.23	6.62	7.04	7.42	7.69	8.12	8.30	5.87	4.21	5.10
SUPPLEMENTS	.17	.19	.25	.30	.37	.49	.50	.74	.85	1.01	1.16	27.53	10.92	22.51
EMPLOYEE COMPENSATION	1.57	1.63	2.03	2.35	2.83	3.36	3.93	4.50	5.15	5.90	6.50	19.03	13.30	16.61
UNIT LABOR COST, PCT.	70.54	64.40	69.80	73.64	80.95	89.80	94.14	101.22	105.84	110.53	113.51	8.63	4.79	6.40
GPO PER MAN-HOUR	5.94	6.07	6.94	6.84	6.69	6.50	6.67	6.69	6.75	6.85	6.97	-1.07	1.11	.16
LABOR COST/SALES, PCT.	30.02	30.96	32.70	35.07	39.60	42.91	44.66	49.11	50.44	52.66	54.23	8.51	4.97	6.43
PROFITS/SALES, PCT.	2.74	3.09	2.80	2.79	2.66	2.60	2.66	2.54	2.70	2.87	2.90	-4.20	2.87	-.42

RUBBER AND MISC. PLASTIC PRODUCTS

I/O CLASSIFICATION 32

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	17.54	19.71	23.00	26.12	28.74	31.05	34.02	37.73	40.60	43.94	47.29
GROWTH RATE, ANNUAL	.00	12.38	16.67	13.57	10.03	8.04	12.15	8.33	7.61	8.24	7.62
GROWTH RATE, CUMULATIVE	.00	12.38	14.51	14.19	13.14	12.10	12.11	11.56	11.06	10.74	10.43
SHIPMENTS, CONSTANT $	18.63	21.07	23.97	26.69	28.45	29.70	32.73	34.60	36.62	38.98	41.55
GROWTH RATE, ANNUAL	.00	13.08	13.79	11.33	6.61	4.38	10.22	5.70	5.86	6.44	6.58
GROWTH RATE, CUMULATIVE	.00	13.08	13.43	12.73	11.17	9.77	9.85	9.25	8.82	8.55	8.35
PRICE DEFLATOR	.94	.94	.96	.98	1.01	1.05	1.06	1.09	1.11	1.13	1.14
GROWTH RATE, ANNUAL	.00	-.62	2.53	2.01	3.21	3.50	1.75	2.49	1.66	1.69	.98
GROWTH RATE, CUMULATIVE	.00	-.62	.95	1.30	1.77	2.12	2.06	2.12	2.06	2.02	1.91

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.066	1.000									
1978	1.065	1.064	1.000								
1977	1.063	1.061	1.059	1.000							
1976	1.061	1.060	1.058	1.057	1.000						
1975	1.069	1.070	1.072	1.079	1.102	1.000					
1974	1.065	1.065	1.065	1.067	1.073	1.044	1.000				
1973	1.065	1.065	1.065	1.067	1.070	1.055	1.066	1.000			
1972	1.071	1.072	1.073	1.076	1.081	1.074	1.089	1.113	1.000		
1971	1.078	1.080	1.082	1.086	1.092	1.090	1.105	1.126	1.138	1.000	
1970	1.084	1.086	1.088	1.092	1.098	1.098	1.112	1.127	1.134	1.131	1.000

STONE, CLAY AND GLASS PRODUCTS

SIC CLASSIFICATION(S)
32

I/O CLASSIFICATION(S)
35 36

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES, YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	17.56	19.35	22.19	25.82	27.33	30.11	33.45	36.77	39.77	42.87	45.77	11.69	8.16	10.04
SALES, FTC-SEC, CONST $	15.50	15.83	17.89	19.73	20.53	21.35	23.33	24.77	26.05	27.52	28.90	7.76	5.50	6.92
WHSL PRICES, 1967=100.0	113.3	122.3	124.0	126.9	133.1	141.1	143.4	148.5	152.6	155.8	158.4	3.64	2.52	2.92
GPO, CONSTANT $	6.51	7.00	7.71	8.25	8.38	8.50	9.11	9.49	9.85	10.29	10.76	4.67	4.25	4.77
PROFITS BEFORE TAXES	1.16	1.21	1.70	1.73	1.75	1.82	2.07	2.16	2.36	2.55	2.62	10.79	6.13	8.97
CORPORATE INCOME TAXES	.53	.51	.73	.74	.74	.77	.88	.92	1.00	1.09	1.12	10.99	6.17	9.10
PROFITS AFTER TAXES	.63	.70	.97	.99	1.00	1.05	1.19	1.24	1.35	1.46	1.50	10.64	6.11	8.80
DIVIDENDS	.34	.33	.35	.36	.38	.40	.43	.45	.49	.53	.57	4.66	7.50	6.24
RETAINED EARNINGS	.29	.37	.62	.63	.63	.65	.76	.79	.86	.93	.94	15.26	5.20	10.86
DEPRECIATION	.81	.81	.83	.88	.94	1.01	1.10	1.20	1.32	1.44	1.58	5.80	9.56	7.77
CORPORATE CASH FLOW	1.44	1.51	1.80	1.87	1.94	2.06	2.29	2.44	2.67	2.91	3.09	8.14	7.80	8.29
INVESTMENT	.90	.88	1.10	1.45	1.70	1.86	2.00	2.36	2.61	2.85	3.12	20.54	10.60	15.11
CAPITAL STOCK	3.30	3.22	3.19	3.33	3.57	3.84	4.10	4.30	4.69	5.00	5.31	4.47	6.70	5.72
CAPACITY UTILIZATION	89.0	95.4	100.0	101.0	97.3	93.0	93.0	90.9	88.6	86.0	85.3	-.64	-2.13	-1.23
CAPITAL/OUTPUT RATIO	.51	.45	.41	.40	.43	.45	.45	.46	.48	.49	.49	-.17	2.31	.90
CAPITAL/LABOR RATIO	2.42	2.42	2.31	2.32	2.46	2.63	2.71	2.85	3.00	3.14	3.20	2.10	4.09	3.46
PRODUCTION WORKERS	507.	497.	507.	523.	522.	521.	530.	546.	551.	557.	564.	1.21	1.10	1.43
HOURS WORKED PER WEEK	41.3	41.1	41.0	42.2	42.4	42.4	42.7	42.7	42.7	42.8	42.8	.77	.10	.45
HOURLY WAGE RATE	3.40	3.64	3.86	4.09	4.40	4.72	5.00	5.20	5.57	5.83	6.06	6.71	4.92	5.83
SUPPLEMENTS	.52	.57	.69	.79	.87	1.04	1.15	1.35	1.47	1.62	1.76	16.25	11.69	13.52
EMPLOYEE COMPENSATION	4.22	4.44	4.94	5.49	5.93	6.47	7.12	7.76	8.29	8.85	9.41	9.80	7.19	8.70
OVERHEAD WORKERS	131.	130.	133.	138.	143.	147.	152.	158.	163.	169.	174.	3.20	3.35	3.29
HOURLY WAGE RATE	5.50	5.84	6.14	6.47	7.04	7.64	8.05	8.50	9.04	9.47	9.85	6.94	5.17	5.97
SUPPLEMENTS	.19	.21	.25	.28	.32	.40	.44	.53	.60	.67	.75	18.05	14.41	15.30
EMPLOYEE COMPENSATION	1.60	1.79	1.95	2.14	2.42	2.75	2.99	3.31	3.66	3.98	4.32	11.34	9.60	10.29
UNIT LABOR COST, PCT.	90.61	87.95	89.31	92.46	99.63	100.47	111.03	116.65	121.32	124.79	127.51	5.30	3.52	4.21
GPO PER MAN-HOUR	4.79	5.31	5.59	5.74	5.70	5.84	6.03	6.16	6.31	6.47	6.65	2.37	2.49	2.53
LABOR COST/SALES, PCT.	33.61	32.17	31.02	30.50	30.54	30.60	30.24	30.12	30.05	29.94	29.90	-1.24	-.22	-.70
PROFITS/SALES, PCT.	3.50	3.62	4.30	3.90	3.67	3.40	3.55	3.30	3.40	3.42	3.29	-.93	-1.90	-1.05

GLASS AND GLASS PRODUCTS

I/O CLASSIFICATION 35

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	4.96	5.82	6.58	7.49	8.41	9.30	10.29	11.11	11.95	12.66	13.35
GROWTH RATE, ANNUAL	.00	17.24	13.03	13.96	12.25	10.61	8.44	10.10	7.12	6.39	5.48
GROWTH RATE, CUMULATIVE	.00	17.24	15.12	14.73	14.11	13.40	12.56	12.20	11.55	10.97	10.41
SHIPMENTS, CONSTANT $	3.86	4.00	4.41	4.86	5.06	5.13	5.44	5.69	5.86	6.06	6.30
GROWTH RATE, ANNUAL	.00	3.70	10.17	10.18	4.20	1.36	5.94	4.71	2.99	3.43	3.88
GROWTH RATE, CUMULATIVE	.00	3.70	6.89	7.97	7.02	5.86	5.88	5.71	5.36	5.15	5.02
PRICE DEFLATOR	1.29	1.45	1.49	1.54	1.66	1.81	1.86	1.95	2.03	2.09	2.12
GROWTH RATE, ANNUAL	.00	13.05	2.60	3.43	7.73	9.12	2.36	5.15	4.02	2.87	1.55
GROWTH RATE, CUMULATIVE	.00	13.05	7.70	6.26	6.62	7.12	6.31	6.14	5.88	5.54	5.13

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR \ ENDING YEAR	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.039	1.000									
1978	1.037	1.034	1.000								
1977	1.034	1.032	1.030	1.000							
1976	1.037	1.037	1.038	1.047	1.000						
1975	1.042	1.043	1.045	1.053	1.059	1.000					
1974	1.037	1.037	1.037	1.040	1.036	1.014	1.000				
1973	1.038	1.038	1.038	1.040	1.038	1.020	1.042	1.000			
1972	1.046	1.047	1.049	1.052	1.054	1.052	1.071	1.102	1.000		
1971	1.052	1.053	1.056	1.060	1.063	1.064	1.081	1.102	1.102	1.000	
1970	1.050	1.051	1.054	1.057	1.059	1.059	1.078	1.098	1.069	1.037	1.000

PETROLEUM REFINING AND RELATED INDUSTRIES

SIC CLASSIFICATION(S)
29

I/O CLASSIFICATION(S)
31

FORECAST PREPARED ON NOVEMBER 23, 1971
SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	ANNUALIZED COMPOUND GROWTH RATES-YEARS- 1-5	5-10	1-10
SALES, FTC-SEC, CUR $	64.10	72.67	79.81	87.77	95.24	103.00	111.73	120.29	128.23	136.22	143.82	9.13	6.52	7.80
SALES, FTC-SEC, CONST $	63.40	67.96	73.39	80.05	84.75	88.31	94.20	98.80	103.61	109.02	114.96	6.77	5.10	6.01
WHSL PRICES, 1967=100.0	101.1	106.9	108.7	109.6	112.4	116.7	118.6	121.6	123.8	125.0	125.1	2.22	1.34	1.76
GPO, CONSTANT $	5.10	5.51	5.81	6.20	6.49	6.72	7.02	7.31	7.57	7.86	8.16	5.00	3.03	4.46
PROFITS BEFORE TAXES	7.04	7.35	7.75	8.60	9.26	9.74	10.30	11.00	11.53	12.19	12.94	7.30	5.60	6.49
CORPORATE INCOME TAXES	1.11	1.10	1.10	1.20	1.27	1.30	1.35	1.41	1.45	1.52	1.61	4.29	4.41	4.33
PROFITS AFTER TAXES	5.93	6.25	6.65	7.39	7.99	8.45	9.02	9.59	10.00	10.67	11.33	7.00	5.06	6.03
DIVIDENDS	3.10	3.47	3.74	4.05	4.37	4.60	5.02	5.37	5.72	6.09	6.49	7.10	6.62	7.20
RETAINED EARNINGS	2.75	2.70	2.91	3.34	3.62	3.76	4.00	4.22	4.35	4.50	4.04	7.02	4.09	6.35
DEPRECIATION	4.49	4.79	5.06	5.36	5.69	6.10	6.57	7.05	7.54	8.06	8.63	6.26	7.07	6.77
CORPORATE CASH FLOW	10.42	11.04	11.71	12.75	13.60	14.55	15.59	16.64	17.62	18.73	19.97	7.14	6.30	6.00
INVESTMENT	5.62	5.99	6.30	7.29	8.40	9.51	10.26	11.30	12.13	12.90	13.73	12.27	7.55	9.66
CAPITAL STOCK	20.11	20.50	20.99	21.62	22.64	23.00	25.12	26.40	27.67	20.09	30.04	3.79	4.57	4.20
CAPACITY UTILIZATION	91.3	96.2	97.0	99.0	90.7	96.7	95.5	94.3	91.9	90.0	00.7	.14	-1.04	-.90
CAPITAL/OUTPUT RATIO	3.94	3.73	3.61	3.49	3.49	3.55	3.57	3.61	3.65	3.67	3.60	-1.23	.72	-.16
CAPITAL/LABOR RATIO	40.37	50.03	52.06	54.74	50.04	63.73	60.01	74.36	00.35	06.69	93.43	6.24	7.95	7.19
PRODUCTION WORKERS	117.	116.	112.	109.	105.	102.	99.	95.	92.	09.	05.	-3.11	-3.60	-3.30
HOURS WORKED PER WEEK	42.7	42.5	42.7	43.0	43.1	43.2	43.4	43.5	43.5	43.7	43.0	.43	.23	.34
HOURLY WAGE RATE	4.27	4.59	4.01	5.05	5.42	5.01	6.15	6.49	6.05	7.16	7.43	6.00	4.03	5.49
SUPPLEMENTS	.57	.64	.72	.77	.01	.95	.97	1.10	1.14	1.20	1.25	10.20	6.37	7.67
EMPLOYEE COMPENSATION	1.60	1.01	1.92	2.00	2.09	2.20	2.34	2.50	2.57	2.63	2.60	5.07	3.45	4.44
OVERHEAD WORKERS	75.	75.	74.	73.	71.	70.	69.	67.	05.	04.	02.	-1.60	-2.41	-2.14
HOURLY WAGE RATE	6.27	6.67	7.04	7.40	0.01	0.56	9.06	9.50	10.10	10.57	11.00	6.43	4.96	5.72
SUPPLEMENTS	.42	.47	.53	.50	.62	.73	.76	.07	.91	.96	1.02	11.95	7.55	9.07
EMPLOYEE COMPENSATION	1.39	1.50	1.61	1.71	1.01	1.90	2.05	2.20	2.20	2.36	2.43	7.00	4.29	5.47
UNIT LABOR COST, PCT.	60.32	60.24	60.00	59.94	60.21	63.30	62.57	64.32	64.10	63.56	62.62	1.20	.02	.43
GPO PER MAN-HOUR	12.27	13.40	14.40	15.69	16.07	17.93	19.25	20.50	21.99	23.59	25.40	7.56	7.10	7.36
LABOR COST/SALES, PCT.	4.00	4.57	4.43	4.23	4.10	4.13	3.93	3.91	3.79	3.67	3.55	-2.40	-2.50	-2.75
PROFITS/SALES, PCT.	9.24	0.61	0.33	0.42	0.39	0.19	0.00	7.97	7.06	7.03	7.00	-1.22	-.41	-.97

PETROLEUM REFINING AND RELATED INDUSTRIES

I/O CLASSIFICATION 31

FORECAST PREPARED ON NOVEMBER 23, 1971

SPECIAL FORECAST FOR CEQ - NO RECESSION

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SHIPMENTS, CURRENT $	31.70	33.73	35.94	38.51	41.16	43.98	46.46	49.32	51.80	54.09	56.88
GROWTH RATE, ANNUAL	.00	6.15	6.56	7.13	6.89	6.85	5.63	6.15	5.05	4.40	3.69
GROWTH RATE, CUMULATIVE	.00	6.15	6.36	6.61	6.68	6.72	6.54	6.48	6.30	6.09	5.85
SHIPMENTS, CONSTANT $	31.59	31.98	33.71	35.97	37.68	38.99	40.77	42.40	43.96	45.62	47.38
GROWTH RATE, ANNUAL	.00	1.25	5.39	6.71	4.74	3.50	4.56	3.99	3.68	3.77	3.87
GROWTH RATE, CUMULATIVE	.00	1.25	3.30	4.42	4.50	4.30	4.35	4.29	4.22	4.17	4.14
PRICE DEFLATOR	1.01	1.05	1.07	1.07	1.09	1.13	1.14	1.16	1.18	1.19	1.18
GROWTH RATE, ANNUAL	.00	4.04	1.11	.39	2.06	3.24	1.02	2.00	1.32	.61	-.17
GROWTH RATE, CUMULATIVE	.00	4.04	2.96	2.10	2.09	2.32	2.10	2.10	2.00	1.04	1.64

GROWTH MATRIX

GROWTH OF CONSTANT DOLLAR SHIPMENTS

STARTING YEAR	ENDING YEAR 1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
1980	1.000										
1979	1.039	1.000									
1978	1.038	1.038	1.000								
1977	1.038	1.037	1.037	1.000							
1976	1.038	1.038	1.038	1.040	1.000						
1975	1.040	1.040	1.041	1.043	1.046	1.000					
1974	1.039	1.039	1.039	1.040	1.040	1.035	1.000				
1973	1.040	1.040	1.041	1.042	1.043	1.041	1.047	1.000			
1972	1.043	1.044	1.045	1.047	1.049	1.050	1.057	1.067	1.000		
1971	1.045	1.045	1.046	1.048	1.050	1.051	1.056	1.060	1.054	1.000	
1970	1.041	1.042	1.042	1.043	1.043	1.043	1.045	1.044	1.033	1.013	1.000